

```

      50              55              60
Asn Ser Ser Thr Glu Ala Asn Val Ile Lys Glu Ala Leu Asp Ser Ser
65              70              75              80
Leu Glu Ser Thr Leu Asp Asn Ser Cys Gln Gly Ala Gln Met Asp Asn
      85              90              95
Lys Ser Glu Val Gln Leu Trp Leu Leu Lys Arg Ile Gln Val Pro Ile
      100             105             110
Glu Asp Ile Leu Pro Ser Lys Glu Lys Ser Lys Thr Pro Pro Met
      115             120             125
Phe Leu Cys Ile Lys Val Gly Lys Pro Met Arg Lys Ser Phe Ala Thr
      130             135             140
His Thr Ala Ala Met Val Gln Gln Tyr Gly Lys Arg Arg Lys Gln Pro
145             150             155             160
Glu Tyr Trp Phe Ala Val Pro Arg Glu Arg Val Asp His Leu Tyr Thr
      165             170             175
Phe Phe Val Gln Trp Ser Pro Asp Val Tyr Gly Lys Asp Ala Lys Glu
      180             185             190
Gln Gly Phe Val Val Val Glu Lys Glu Glu Leu Asn Met Ile Asp Asn
      195             200             205
Phe Phe Ser Glu Pro Thr Thr Lys Ser Trp Glu Ile Ile Thr Val Glu
      210             215             220
Glu Ala Lys Arg Arg Lys Ser Thr Cys Ser Tyr Tyr Glu Asp Glu Asp
225             230             235             240
Glu Glu Val Leu Pro Val Leu Arg Pro Pro Arg Ala Phe Trp Glu Asn
      245             250             255
Lys Pro Leu Asn Arg Trp Ala Arg Pro Phe Pro Ala Arg Val Gln Gly
      260             265             270
Tyr Pro Trp Arg Leu Ala Tyr Ser Thr Leu Glu His Gly Thr Ser Leu
      275             280             285
Lys Thr Leu Tyr Arg Lys Ser Ala Ser Leu Asp Ser Pro Val Leu Leu
      290             295             300
Val Ile Lys
305

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&lt;210&gt; 2763

&lt;211&gt; 2210

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2763

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60
gttcttggtg gatcacaac aacctaatg acagtctatc gccaacatcc acaaacacag
120
caaacagtcc agtcctgcag accacacagg gtacatctag aggggtctac ttgcatcacc
180
cacacttcca ctctgtgaa acaactgtct tgggcatgag aagggccagg ataggccagg
240
tgaatggcag gctgccaac aacccaatc ccaaaccaac ctcccaggcc atgggccaac
300
gtccctgcag gaagatgcta ataggtacaa caggtagaac atgtagacac aaacatctag
360
tttatttttt ctgactgtaa ccaaagtcag caaaagaaac aacaaaactt cagtgccta
420

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gaaatcctcc tggattcaat gacaacacat caatggccgg gcacaggggtt ggattccttt  
480  
tatgaaatca ccttataatc tctcatcatc ccaggacagt gccttttggg actgcatgaa  
540  
tctttaatag ctacaccaca ttttctcatc ctttaagtta tgacagacag gttatctctc  
600  
tccaagagca tcagggttaga tgctctttca ctcttacaaa ctgtcagggtg gagggagaat  
660  
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720  
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780  
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840  
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900  
tctgtgagct gtattcgcat cagcgccgga gcctcagaaa gaatgcgtgt ttacactctg  
960  
tactctccaa tgggtaatat ttatcataga aatctaatac atattcttca gtcttgaatc  
1020  
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1080  
tgcccatgca ggtctgaatc agatgataga tcatgaaagt tgcaatccct gctcttctcc  
1140  
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1200  
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1260  
gcagacactc agacaggtca atgccaggcc aaaaaaactc ctgacacatg gagttgatcg  
1320  
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1380  
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1440  
gctttgtttc ataatcacgc ctgatataag gtttcaagat ccgagaggta taagggtga  
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1740  
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1920  
ccagctgagg cttcctcttt tctctagccc ttgtttgcaa agatgtgttt gaatctgtgt  
1980  
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2040

tctgttcagg gcctctgacc ttctttctgc ccccaaccac tggcccagaa gctactgacc  
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 2210

<210> 2764

<211> 423

<212> PRT

<213> Homo sapiens

<400> 2764

Met	Pro	Pro	Gln	Ala	Leu	Phe	His	Asp	Asp	Asp	Glu	Met	Glu	Gly	Asp
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Gly	Val	Ile	Asp	Pro	Gly	Met	Glu	Tyr	Val	Pro	Pro	Pro	Ala	Gly	Ser
			20					25					30		
Val	Ala	Ser	Gly	Pro	Val	Val	Gly	Gly	Arg	Lys	Lys	Val	Arg	Gly	Pro
		35					40					45			
Glu	Gln	Ile	Lys	Gln	Glu	Val	Glu	Ser	Glu	Glu	Glu	Lys	Pro	Asp	Arg
	50					55					60				
Met	Asp	Ile	Asp	Ser	Glu	Asp	Thr	Asp	Ser	Asn	Thr	Ser	Leu	Gln	Thr
65					70					75				80	
Arg	Ala	Arg	Glu	Lys	Arg	Lys	Pro	Gln	Leu	Glu	Lys	Asp	Thr	Lys	Pro
			85					90						95	
Lys	Glu	Pro	Arg	Tyr	Thr	Pro	Val	Ser	Ile	Tyr	Glu	Glu	Lys	Leu	Leu
			100					105					110		
Leu	Lys	Arg	Leu	Glu	Ala	Cys	Pro	Gly	Ala	Val	Ala	Met	Thr	Pro	Glu
			115				120					125			
Ala	Arg	Arg	Leu	Lys	Arg	Lys	Leu	Ile	Val	Arg	Gln	Ala	Lys	Arg	Asp
	130					135					140				
Arg	Gly	Leu	Pro	Leu	Phe	Asp	Leu	Asp	Gln	Val	Val	Asn	Ala	Ala	Leu
145				150						155					160
Leu	Leu	Val	Asp	Gly	Ile	Tyr	Gly	Ala	Lys	Glu	Gly	Gly	Ile	Ser	Arg
			165					170						175	
Leu	Pro	Ala	Gly	Gln	Ala	Thr	Tyr	Arg	Thr	Thr	Cys	Gln	Asp	Phe	Arg
			180					185					190		
Ile	Leu	Asp	Arg	Tyr	Gln	Thr	Ser	Leu	Pro	Ser	Arg	Lys	Gly	Phe	Arg
		195					200					205			
His	Gln	Thr	Thr	Lys	Phe	Leu	Tyr	Arg	Leu	Val	Gly	Ser	Glu	Asp	Met
	210					215					220				
Ala	Val	Asp	Gln	Ser	Ile	Val	Ser	Pro	Tyr	Thr	Ser	Arg	Ile	Leu	Lys
225				230						235				240	
Pro	Tyr	Ile	Arg	Arg	Asp	Tyr	Glu	Thr	Lys	Pro	Pro	Lys	Leu	Gln	Leu
			245					250						255	
Leu	Ser	Gln	Ile	Arg	Ser	His	Leu	His	Arg	Ser	Asp	Pro	His	Trp	Thr
			260				265						270		
Pro	Glu	Pro	Asp	Ala	Pro	Leu	Asp	Tyr	Cys	Tyr	Val	Arg	Pro	Asn	His
		275					280					285			
Ile	Pro	Thr	Ile	Asn	Ser	Met	Cys	Gln	Glu	Phe	Phe	Trp	Pro	Gly	Ile
	290					295					300				
Asp	Leu	Ser	Glu	Cys	Leu	Gln	Tyr	Pro	Asp	Phe	Ser	Val	Val	Val	Leu
305				310						315				320	
Tyr	Lys	Lys	Val	Ile	Ile	Ala	Phe	Gly	Phe	Met	Val	Pro	Asp	Val	Lys

```

                325                330                335
Tyr Asn Glu Ala Tyr Ile Ser Phe Leu Phe Val His Pro Glu Trp Arg
                340                345                350
Arg Ala Gly Ile Ala Thr Phe Met Ile Tyr His Leu Ile Gln Thr Cys
                355                360                365
Met Gly Lys Asp Val Thr Leu His Val Ser Ala Ser Asn Pro Ala Met
                370                375                380
Leu Leu Tyr Gln Lys Phe Gly Phe Lys Thr Glu Glu Tyr Val Leu Asp
385                390                395                400
Phe Tyr Asp Lys Tyr Tyr Pro Leu Glu Ser Thr Glu Cys Lys His Ala
                405                410                415
Phe Phe Leu Arg Leu Arg Arg
                420

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<210> 2765  
 <211> 582  
 <212> DNA  
 <213> Homo sapiens

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<400> 2765
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120
agtggagggg caggatggca cgccacttg gggcttgggg gcgctccggc tgccgtaccg
180
tggtgcaag cctaaaccgg gcttggggccc atcctgagca gccaggggtt tggtcagctc
240
ccggcttctg gccactcggc atcgccagag tctccaggcc agcacagggc cagcgatggc
300
aagtccaaga agcaggcacc cgctgaccac cactgccccg atagttgcag aggccaggcc
360
aggggcgag ctgacctcca ggaaggcaga gaggttgtgc tgggagctgg ttgtgtccca
420
gcagagcaga ggcttctggc cagagcagtt gtctcggcgg atgtcgtgcc aggactccag
480
ggcacagttg cagtcggcct gcaggtcaag gtcacagcgg ggggccagcg ccccatccac
540
acgagacaag gggttgcgta gcacgttcag gacctcaagc tt
582

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<210> 2766  
 <211> 100  
 <212> PRT  
 <213> Homo sapiens

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<400> 2766
Met Gly Arg Trp Pro Pro Ala Val Thr Leu Thr Cys Arg Pro Thr Ala
1      5      10      15
Thr Val Pro Trp Ser Pro Gly Thr Thr Ser Ala Glu Thr Thr Ala Leu
20     25     30
Ala Arg Ser Leu Cys Ser Ala Gly Thr Gln Pro Ala Pro Ser Thr Thr
35     40     45
Ser Leu Pro Ser Trp Arg Ser Ala Ala Pro Leu Ala Trp Pro Leu Gln

```



50                      55                      60  
 Leu Ser Gly Gln Trp Trp Ser Ala Gly Ala Cys Phe Leu Asp Leu Pro  
 65                      70                      75                      80  
 Ser Leu Ala Leu Cys Trp Pro Gly Asp Ser Gly Asp Ala Glu Trp Pro  
                     85                      90                      95  
 Glu Ala Gly Ser  
                     100

&lt;210&gt; 2767

&lt;211&gt; 1202

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2767

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 60  
 atcacttctg atgactccct ggagcacact gacagttcag atgtgtcgac cctgcagaat  
 120  
 gactcagcct acgacagcaa cgaccctgat gtggaatcca acagcagcag tggcatcagc  
 180  
 tctcccagca ggcagcccca ggtgcccattg gccacagctg ctggccttga tagcgcgggc  
 240  
 ccacaggatg cccgagaggt cagcccagag ccatttgtga gcaccgtggc caggctgaaa  
 300  
 agctccctcg cacagcccgga taggagatac tcagagccca gcattgccatc ctcccaggag  
 360  
 tgccctcgaga gccgggtgac aaaccaaaca ctaacaaaga gtgaagggga cttccccgtg  
 420  
 ccccggttag gctctcgttt ggaaagttag gaggtgaag acccatttcc agaggaggtc  
 480  
 ttccctgcag tgcaaggcaa aaccaagagg ccggtggacc tgaagatcaa gaacttggcc  
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 600  
 gcgtcctctg acagctcgcc cgtggcttct ccttccagtc ccaaaagaaa tttcttcagc  
 660  
 agacatcagt ctttcaccac aaagacagag aaaggcaagc ccagccgaga aattaaaaag  
 720  
 cactccatgt ctttcacott tgccctcac aaaaaagtgc tgaccaaaaa cctcagcgcg  
 780  
 ggctctggga aatcgcaaga ctttaccagg gaccacgtcc cgaggggtgt cagaaaggaa  
 840  
 agccagcttg ccggccgaat cgtgcaggaa aatgggtgtg aaaccacaaa ccaaacagcc  
 900  
 cgcggttctt gctgagacc ccacgcctc tcggtggatg atgtgttcca gggagctgac  
 960  
 tgggagaggc ctggaagccc accctcttat gaagaggcca tgcagggccc ggcagccaga  
 1020  
 ctagtggcct cccagcaatt tcaatttcta gcttgacact aaaatgggta tttttcagta  
 1080  
 acggggggag aagtggggag gcagagtgtg aagggaata aaaccaatta gtaattttta  
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 1200

ag  
1202

<210> 2768  
<211> 282  
<212> PRT  
<213> Homo sapiens

<400> 2768  
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Glu Val Ser Pro Glu Pro Ile Val Ser Thr Val Ala Arg Leu Lys Ser  
20 25 30  
Ser Leu Ala Gln Pro Asp Arg Arg Tyr Ser Glu Pro Ser Met Pro Ser  
35 40 45  
Ser Gln Glu Cys Leu Glu Ser Arg Val Thr Asn Gln Thr Leu Thr Lys  
50 55 60  
Ser Glu Gly Asp Phe Pro Val Pro Arg Val Gly Ser Arg Leu Glu Ser  
65 70 75 80  
Glu Glu Ala Glu Asp Pro Phe Pro Glu Glu Val Phe Pro Ala Val Gln  
85 90 95  
Gly Lys Thr Lys Arg Pro Val Asp Leu Lys Ile Lys Asn Leu Ala Pro  
100 105 110  
Gly Ser Val Leu Pro Arg Ala Leu Val Leu Lys Ala Phe Ser Ser Ser  
115 120 125  
Ser Leu Asp Ala Ser Ser Asp Ser Ser Pro Val Ala Ser Pro Ser Ser  
130 135 140  
Pro Lys Arg Asn Phe Phe Ser Arg His Gln Ser Phe Thr Thr Lys Thr  
145 150 155 160  
Glu Lys Gly Lys Pro Ser Arg Glu Ile Lys Lys His Ser Met Ser Phe  
165 170 175  
Thr Phe Ala Pro His Lys Lys Val Leu Thr Lys Asn Leu Ser Ala Gly  
180 185 190  
Ser Gly Lys Ser Gln Asp Phe Thr Arg Asp His Val Pro Arg Gly Val  
195 200 205  
Arg Lys Glu Ser Gln Leu Ala Gly Arg Ile Val Gln Glu Asn Gly Cys  
210 215 220  
Glu Thr His Asn Gln Thr Ala Arg Gly Phe Cys Leu Arg Pro His Ala  
225 230 235 240  
Leu Ser Val Asp Asp Val Phe Gln Gly Ala Asp Trp Glu Arg Pro Gly  
245 250 255  
Ser Pro Pro Ser Tyr Glu Glu Ala Met Gln Gly Pro Ala Ala Arg Leu  
260 265 270  
Val Ala Ser Gln Gln Phe Gln Phe Leu Ala  
275 280

<210> 2769  
<211> 1286  
<212> DNA  
<213> Homo sapiens

<400> 2769  
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gaggccctcc cggagcaggt agcccccgag tcccgaaatc gcatccgggt tcggcaagac  
 120  
 ctggcgctctc tcccggtga acttatcaac cagattggga accgctgcca cccaagctc  
 180  
 tacgacgagg gcgacccctc tgagaagctg gagctgggta caggcaccaa cgtgtacatc  
 240  
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 300  
 cggcggctcc tggcctcctt ctttgaccgg aacacgctgg ccaacagctg cggcaccggc  
 360  
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 420  
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 720  
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 1200  
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 1260  
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 1286

&lt;210&gt; 2770

&lt;211&gt; 228

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2770

Ile	Cys	Asn	Met	Tyr	Thr	Met	Tyr	Ser	Met	Met	Asn	Val	Gly	Gln	Thr
1				5				10						15	
Ala	Glu	Lys	Val	Glu	Ala	Leu	Pro	Glu	Gln	Val	Ala	Pro	Glu	Ser	Arg
			20					25					30		
Asn	Arg	Ile	Arg	Val	Arg	Gln	Asp	Leu	Ala	Ser	Leu	Pro	Ala	Glu	Leu

35 40 45  
 Ile Asn Gln Ile Gly Asn Arg Cys His Pro Lys Leu Tyr Asp Glu Gly  
 50 55 60  
 Asp Pro Ser Glu Lys Leu Glu Leu Val Thr Gly Thr Asn Val Tyr Ile  
 65 70 75 80  
 Thr Arg Ala Gln Leu Met Asn Cys His Val Ser Ala Gly Thr Arg His  
 85 90 95  
 Lys Val Leu Leu Arg Arg Leu Leu Ala Ser Phe Phe Asp Arg Asn Thr  
 100 105 110  
 Leu Ala Asn Ser Cys Gly Thr Gly Ile Arg Ser Ser Thr Asn Asp Pro  
 115 120 125  
 Arg Arg Lys Pro Leu Asp Ser Arg Val Leu His Ala Val Lys Tyr Tyr  
 130 135 140  
 Cys Gln Asn Phe Ala Pro Asn Phe Lys Glu Ser Glu Met Asn Ala Ile  
 145 150 155 160  
 Ala Ala Asp Met Cys Thr Asn Ala Arg Arg Val Val Arg Lys Ser Trp  
 165 170 175  
 Met Pro Lys Val Lys Val Leu Lys Ala Glu Asp Asp Ala Tyr Thr Thr  
 180 185 190  
 Phe Ile Ser Glu Thr Gly Lys Ile Glu Pro Asp Met Met Gly Val Glu  
 195 200 205  
 His Gly Phe Glu Thr Ala Ser His Glu Gly Glu Ala Gly Pro Ile Ala  
 210 215 220  
 Glu Ala Leu Gln  
 225

&lt;210&gt; 2771

&lt;211&gt; 1668

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2771

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 acccctctgc cccagtcctc cgggccaggg cggccaacga tgtctactgt tgtggagctg  
 120  
 aacgtcgggg gtgagttcca caccaccacc ctgggtaccc tgaggaagtt tccgggctca  
 180  
 aagctggcag agatgttctc tagcttagcc aaggcctcca cggacgcgga gggccgcttc  
 240  
 ttcacgacc gcccagcac ctatttcaga cccatcctgg actacctgcg cactgggcaa  
 300  
 gtgcccacac agcacatccc tgaagtgtac cgtgaggctc agttctacga aatcaagcct  
 360  
 ttggtcaagc tgctggagga catgccacag atctttggtg agcaggtgtc tcggaagcag  
 420  
 tttttgctgc aagtgccggg ctacagcgag aacctggagc tcatggtgcg cctggcacgt  
 480  
 gcagaagcca taacagcacg gaagtccagc gtgcttgtgt gcctggtgga aactgaggag  
 540  
 caggatgcat attattcaga ggtcctgtgt tttctgcagg ataagaagat gttcaagtct  
 600  
 gttgtcaagt ttggggcctg gaaggcggtc ctagacaaca gcgacctcat gcactgcctg  
 660

gagatggaca ttaaggccca ggggtacaag gtattctcca agttctacct gacgtacccc  
 720  
 accaaaagaa acgaattcca ttttaacatt tattcattca ccttcacctg gtgggtgatcc  
 780  
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 960  
 atttgccatg caacttgcat cttcttctct ttcaaagcct catgtatctc ccagaccctt  
 1020  
 ctcttgaagt ccaataacaa gaccaagtaa gaatgtttca acaatgcgtt ggcaagagat  
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 tagtctacat agccccagct tgggggtccaa tccatctgtc cctggcatgt gccttcattg  
 1200  
 agtaggtgct ttcctgatcc cctttgcatg atgctgtggg tgctaacacc tcagagctgt  
 1260  
 cctcttctct agagtggagg ttttcaaagt gcatcatcag cattacctgt gaacttgctg  
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 1440  
 tctctagaaa agaattgcta cctcttgat ggaggtacaa aagactgacc tcttacatca  
 1500  
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 1560  
 gcacattctt actcagtttt tttctctgt cctacgtgc ttcctcact ccccttctcc  
 1620  
 taagagcact ccatcaataa accacttgca cgagaaaaaa aaaacaaa  
 1668

<210> 2772

<211> 258

<212> PRT

<213> Homo sapiens

<400> 2772

Val	Ile	Cys	Met	Trp	Gln	Gly	Cys	Ala	Val	Glu	Arg	Pro	Val	Gly	Arg
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Met	Thr	Ser	Gln	Thr	Pro	Leu	Pro	Gln	Ser	Pro	Arg	Pro	Arg	Arg	Pro
			20					25					30		
Thr	Met	Ser	Thr	Val	Val	Glu	Leu	Asn	Val	Gly	Gly	Glu	Phe	His	Thr
			35				40					45			
Thr	Thr	Leu	Gly	Thr	Leu	Arg	Lys	Phe	Pro	Gly	Ser	Lys	Leu	Ala	Glu
		50				55					60				
Met	Phe	Ser	Ser	Leu	Ala	Lys	Ala	Ser	Thr	Asp	Ala	Glu	Gly	Arg	Phe
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&lt;211&gt; 3139

&lt;212&gt; DNA

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&lt;400&gt; 2775

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8280  
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8340  
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8625

&lt;210&gt; 2778

&lt;211&gt; 1146

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2778

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Thr Ala Ser Gly Gln Gly Ser Val Lys Tyr Asp Ser Thr Asp Gln Gly
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Ser Pro Ala Ser Thr Pro Ser Thr Thr Arg Pro Leu Asn Ser Val Glu
          20          25          30
Pro Ala Thr Met Gln Pro Ile Pro Glu Ala His Ser Leu Tyr Val Thr
          35          40          45
Leu Ile Leu Ser Asp Ser Val Met Asn Ile Phe Lys Asp Arg Asn Phe
          50          55          60
Asp Ser Cys Cys Ile Cys Ala Cys Asn Met Asn Ile Lys Gly Ala Asp
65          70          75          80
Val Gly Leu Tyr Ile Pro Asp Ser Ser Asn Glu Asp Gln Tyr Arg Cys
          85          90          95
Thr Cys Gly Phe Ser Ala Ile Met Asn Arg Lys Leu Gly Tyr Asn Ser
          100          105          110
Gly Leu Phe Leu Glu Asp Glu Leu Asp Ile Phe Gly Lys Asn Ser Asp
          115          120          125
Ile Gly Gln Ala Ala Glu Arg Arg Leu Met Met Cys Gln Ser Thr Phe
          130          135          140
Leu Pro Gln Val Glu Gly Thr Lys Lys Pro Gln Glu Pro Pro Ile Ser
145          150          155          160
Leu Leu Leu Leu Leu Gln Asn Gln His Thr Gln Pro Phe Ala Ser Leu
          165          170          175
Asn Phe Leu Asp Tyr Ile Ser Ser Asn Asn Arg Gln Thr Leu Pro Cys
          180          185          190
Val Ser Trp Ser Tyr Asp Arg Val Gln Ala Asp Asn Asn Asp Tyr Trp
          195          200          205
Thr Glu Cys Phe Asn Ala Leu Glu Gln Gly Arg Gln Tyr Val Asp Asn
          210          215          220
Pro Thr Gly Gly Lys Val Asp Glu Ala Leu Val Arg Ser Ala Thr Val
225          230          235          240
His Ser Trp Pro His Ser Asn Val Leu Asp Ile Ser Met Leu Ser Ser
          245          250          255
Gln Asp Val Val Arg Met Leu Leu Ser Leu Gln Pro Phe Leu Gln Asp
          260          265          270
Ala Ile Gln Lys Lys Arg Thr Gly Arg Thr Trp Glu Asn Ile Gln His
          275          280          285
Val Gln Gly Pro Leu Thr Trp Gln Gln Phe His Lys Met Ala Gly Arg
          290          295          300
Gly Thr Tyr Gly Ser Glu Glu Ser Pro Glu Pro Leu Pro Ile Pro Thr
305          310          315          320
Leu Leu Val Gly Tyr Asp Lys Asp Phe Leu Thr Ile Ser Pro Phe Ser
          325          330          335
Leu Pro Phe Trp Glu Arg Leu Leu Leu Asp Pro Tyr Gly Gly His Arg
          340          345          350
Asp Val Ala Tyr Ile Val Val Cys Pro Glu Asn Glu Ala Leu Leu Glu
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Gly Ala Lys Thr Phe Phe Arg Asp Leu Ser Ala Val Tyr Glu Met Cys
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Arg Leu Gly Gln His Lys Pro Ile Cys Lys Val Leu Arg Asp Gly Ile

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Met Arg Val Gly Lys Thr Val Ala Gln Lys Leu Thr Asp Glu Leu Val
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Ser Glu Trp Phe Asn Gln Pro Trp Ser Gly Glu Glu Asn Asp Asn His
          420          425          430
Ser Arg Leu Lys Leu Tyr Ala Gln Val Cys Arg His His Leu Ala Pro
          435          440          445
Tyr Leu Ala Thr Leu Gln Leu Asp Ser Ser Leu Leu Ile Pro Pro Lys
          450          455          460
Tyr Gln Thr Pro Pro Ala Ala Ala Gln Gly Gln Ala Thr Pro Gly Asn
          465          470          475          480
Ala Gly Pro Leu Ala Pro Asn Gly Ser Ala Ala Pro Pro Ala Gly Ser
          485          490          495
Ala Phe Asn Pro Thr Ser Asn Ser Ser Ser Thr Asn Pro Ala Ala Ser
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Ser Ser Ala Ser Gly Ser Ser Val Pro Pro Val Ser Ser Ser Ala Ser
          515          520          525
Ala Pro Gly Ile Ser Gln Ile Ser Thr Thr Ser Ser Ser Gly Phe Ser
          530          535          540
Gly Ser Val Gly Gly Gln Asn Pro Ser Thr Gly Gly Ile Ser Ala Asp
          545          550          555          560
Arg Thr Gln Arg Asn Ile Gly Cys Gly Gly Asp Thr Asp Pro Gly Gln
          565          570          575
Ser Ser Ser Gln Pro Ser Gln Asp Gly Gln Glu Ser Val Thr Glu Arg
          580          585          590
Glu Arg Ile Gly Ile Pro Thr Glu Pro Asp Ser Ala Asp Ser His Ala
          595          600          605
His Pro Pro Ala Val Val Ile Tyr Met Val Asp Pro Phe Thr Tyr Ala
          610          615          620
Ala Glu Glu Asp Ser Thr Ser Gly Asn Phe Trp Leu Leu Ser Leu Met
          625          630          635          640
Arg Cys Tyr Thr Glu Met Leu Asp Asn Leu Pro Glu His Met Arg Asn
          645          650          655
Ser Phe Ile Leu Gln Ile Val Pro Cys Gln Tyr Met Leu Gln Thr Met
          660          665          670
Lys Asp Glu Gln Val Phe Tyr Ile Gln Tyr Leu Lys Ser Met Ala Phe
          675          680          685
Ser Val Tyr Cys Gln Cys Arg Arg Pro Leu Pro Thr Gln Ile His Ile
          690          695          700
Lys Ser Leu Thr Gly Phe Gly Pro Ala Ala Ser Ile Glu Met Thr Leu
          705          710          715          720
Lys Asn Pro Glu Arg Pro Ser Pro Ile Gln Leu Tyr Ser Pro Pro Phe
          725          730          735
Ile Leu Ala Pro Ile Lys Asp Lys Gln Thr Glu Leu Gly Glu Thr Phe
          740          745          750
Gly Glu Ala Ser Gln Lys Tyr Asn Val Leu Phe Val Gly Tyr Cys Leu
          755          760          765
Ser His Asp Gln Arg Trp Leu Leu Ala Ser Cys Thr Asp Leu His Gly
          770          775          780
Glu Leu Leu Glu Thr Cys Val Val Asn Ile Ala Leu Pro Asn Arg Ser
          785          790          795          800
Arg Arg Ser Lys Val Ser Ala Arg Lys Ile Gly Leu Gln Lys Leu Trp
          805          810          815
Glu Trp Cys Ile Gly Ile Val Gln Met Thr Ser Leu Pro Trp Arg Val

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Val Ile Gly Arg Leu Gly Arg Leu Gly His Gly Glu Leu Lys Asp Trp
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      850      855      860
Lys Asp Val Cys Arg Met Cys Gly Ile Ser Ala Ala Asp Ser Pro Ser
865      870      875      880
Ile Leu Ser Ala Cys Leu Val Ala Met Glu Pro Gln Gly Ser Phe Val
      885      890      895
Val Met Pro Asp Ala Val Thr Met Gly Ser Val Phe Gly Arg Ser Thr
      900      905      910
Ala Leu Asn Met Gln Ser Ser Gln Leu Asn Thr Pro Gln Asp Ala Ser
      915      920      925
Cys Thr His Ile Leu Val Phe Pro Thr Ser Ser Thr Ile Gln Val Ala
      930      935      940
Pro Ala Asn Tyr Pro Asn Glu Asp Gly Phe Ser Pro Asn Asn Asp Asp
945      950      955      960
Met Phe Val Asp Leu Pro Phe Pro Asp Asp Met Asp Asn Asp Ile Gly
      965      970      975
Ile Leu Met Thr Gly Asn Leu His Ser Ser Pro Asn Ser Ser Pro Val
      980      985      990
Pro Ser Pro Gly Ser Pro Ser Gly Ile Gly Val Gly Ser His Phe Gln
      995      1000      1005
His Ser Arg Ser Gln Gly Glu Arg Leu Leu Ser Arg Glu Ala Pro Glu
      1010      1015      1020
Glu Leu Lys Gln Gln Pro Leu Ala Leu Gly Tyr Phe Val Ser Thr Ala
1025      1030      1035      1040
Lys Ala Glu Asn Leu Pro Gln Trp Phe Trp Ser Ser Cys Pro Gln Ala
      1045      1050      1055
Gln Asn Gln Cys Pro Leu Phe Leu Lys Ala Ser Leu His His His Ile
      1060      1065      1070
Ser Val Ala Gln Thr Asp Glu Leu Leu Pro Ala Arg Asn Ser Gln Arg
      1075      1080      1085
Val Pro His Pro Leu Asp Ser Lys Thr Thr Ser Asp Val Leu Arg Phe
      1090      1095      1100
Val Leu Glu Gln Tyr Asn Ala Leu Ser Trp Leu Thr Cys Asn Pro Ala
1105      1110      1115      1120
Thr Gln Asp Arg Thr Ser Cys Leu Pro Val His Phe Val Val Leu Thr
      1125      1130      1135
Gln Leu Tyr Asn Ala Ile Met Asn Ile Leu
      1140      1145

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&lt;210&gt; 2779

&lt;211&gt; 2461

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2779

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120

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180

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240  
aaaaaaaaaa agtatatata tataaacata tatcaaagaa gttaagcaaa gtgaggaaaa  
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1800

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 2461

&lt;210&gt; 2780

&lt;211&gt; 720

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2780

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			20					25					30		
Val	Thr	Gly	Ile	Arg	Arg	Met	Arg	Phe	Lys	Gly	Leu	Ala	Gly	Val	Asp
		35					40					45			
Ser	Ser	Leu	Glu	Val	Val	Ser	Leu	Leu	Pro	Pro	Arg	Ser	Phe	Ser	Leu
		50				55					60				
Asn	Ser	Glu	Gly	Ala	Glu	Arg	Met	Ala	Thr	Thr	Gly	Thr	Pro	Thr	Ala
65					70					75					80
Asp	Arg	Gly	Asp	Ala	Ala	Ala	Thr	Asp	Asp	Pro	Ala	Ala	Arg	Phe	Gln
			85						90					95	
Val	Gln	Lys	His	Ser	Trp	Asp	Gly	Leu	Arg	Ser	Ile	Ile	His	Gly	Ser
			100					105					110		
Arg	Lys	Tyr	Ser	Gly	Leu	Ile	Val	Asn	Lys	Ala	Pro	His	Asp	Phe	Gln
		115					120					125			
Phe	Val	Gln	Lys	Thr	Asp	Glu	Ser	Gly	Pro	His	Ser	His	Arg	Leu	Tyr
		130				135					140				
Tyr	Leu	Gly	Met	Pro	Tyr	Gly	Ser	Arg	Glu	Asn	Ser	Leu	Leu	Tyr	Ser
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Glu	Ile	Pro	Lys	Lys	Val	Arg	Lys	Glu	Ala	Leu	Leu	Leu	Leu	Ser	Trp
			165					170						175	
Lys	Gln	Met	Leu	Asp	His	Phe	Gln	Ala	Thr	Pro	His	His	Gly	Val	Tyr

			180					185					190				
Ser	Arg	Glu	Glu	Glu	Leu	Leu	Arg	Glu	Arg	Lys	Arg	Leu	Gly	Val	Phe		
		195					200					205					
Gly	Ile	Thr	Ser	Tyr	Asp	Phe	His	Ser	Glu	Ser	Gly	Leu	Phe	Leu	Phe		
		210					215					220					
Gln	Ala	Ser	Asn	Ser	Leu	Phe	His	Cys	Arg	Asp	Gly	Gly	Lys	Asn	Gly		
225					230					235					240		
Phe	Met	Val	Ser	Pro	Gly	Pro	Gly	Cys	Val	Ser	Pro	Met	Lys	Pro	Leu		
				245					250					255			
Glu	Ile	Lys	Thr	Gln	Cys	Ser	Gly	Pro	Arg	Met	Asp	Pro	Lys	Ile	Cys		
			260					265					270				
Pro	Ala	Asp	Pro	Ala	Phe	Phe	Ser	Phe	Ile	Asn	Asn	Ser	Asp	Leu	Trp		
		275					280					285					
Val	Ala	Asn	Ile	Glu	Thr	Gly	Glu	Glu	Arg	Arg	Leu	Thr	Phe	Cys	His		
		290				295					300						
Gln	Gly	Leu	Ser	Asn	Val	Leu	Asp	Asp	Pro	Lys	Ser	Ala	Gly	Val	Ala		
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Thr	Phe	Val	Ile	Gln	Glu	Glu	Phe	Asp	Arg	Phe	Thr	Gly	Tyr	Trp	Trp		
				325					330					335			
Cys	Pro	Thr	Ala	Ser	Trp	Glu	Gly	Ser	Glu	Gly	Leu	Lys	Thr	Leu	Arg		
			340					345					350				
Ile	Leu	Tyr	Glu	Glu	Val	Asp	Glu	Ser	Glu	Val	Glu	Val	Ile	His	Val		
		355					360					365					
Pro	Ser	Pro	Ala	Leu	Glu	Glu	Arg	Lys	Thr	Asp	Ser	Tyr	Arg	Tyr	Pro		
		370				375					380						
Arg	Thr	Gly	Ser	Lys	Asn	Pro	Lys	Ile	Ala	Leu	Lys	Leu	Ala	Glu	Phe		
385				390						395					400		
Gln	Thr	Asp	Ser	Gln	Gly	Lys	Ile	Val	Ser	Thr	Gln	Glu	Lys	Glu	Leu		
				405					410					415			
Val	Gln	Pro	Phe	Ser	Ser	Leu	Phe	Pro	Lys	Val	Glu	Tyr	Ile	Ala	Arg		
			420					425				430					
Ala	Gly	Trp	Thr	Arg	Asp	Gly	Lys	Tyr	Ala	Trp	Ala	Met	Phe	Leu	Asp		
		435					440					445					
Arg	Pro	Gln	Gln	Trp	Leu	Gln	Leu	Val	Leu	Leu	Pro	Pro	Ala	Leu	Phe		
		450				455					460						
Ile	Pro	Ser	Thr	Glu	Asn	Glu	Glu	Gln	Arg	Leu	Ala	Ser	Ala	Arg	Ala		
465				470						475					480		
Val	Pro	Arg	Asn	Val	Gln	Pro	Tyr	Val	Val	Tyr	Glu	Glu	Val	Thr	Asn		
			485						490					495			
Val	Trp	Ile	Asn	Val	His	Asp	Ile	Phe	Tyr	Pro	Phe	Pro	Gln	Ser	Glu		
			500					505					510				
Gly	Glu	Asp	Glu	Leu	Cys	Phe	Leu	Arg	Ala	Asn	Glu	Cys	Lys	Thr	Gly		
		515					520					525					
Phe	Cys	His	Leu	Tyr	Lys	Val	Thr	Ala	Val	Leu	Lys	Ser	Gln	Gly	Tyr		
		530				535					540	</					

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625	630	635
Tyr Ser Ser Val Ser Thr Pro Pro Cys Val His Val Tyr Lys Leu Ser		
	645	650
Gly Pro Asp Asp Asp Pro Leu His Lys Gln Pro Arg Phe Trp Ala Ser		655
	660	665
Met Met Glu Ala Ala Ser Cys Pro Pro Asp Tyr Val Pro Pro Glu Ile		670
	675	680
Phe His Phe His Thr Arg Ser Asp Val Arg Leu Tyr Gly Met Ile Tyr		685
	690	700
Lys Pro His Ala Leu Gln His Ile Thr Lys Lys Ser Thr Val Phe Glu		
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		720

&lt;210&gt; 2781

&lt;211&gt; 1268

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2781

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1020

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 1260  
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 1268

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 <213> Homo sapiens

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 Ala Arg Thr Gly Leu Arg Ile Cys Asp Leu Leu Ser Asp Phe Asp Glu  
 35 40 45  
 Phe Ser Ser Arg Phe Lys Asn Leu Ala His Gln His Gln Ser Met Phe  
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 Pro Thr Leu Glu Ile Asp Ile Glu Gly Gln Leu Lys Arg Leu Lys Gly  
 65 70 75 80  
 Phe Ala Glu Arg Ile Arg Pro Met Val Arg Asp Gly Val Tyr Phe Met  
 85 90 95  
 Tyr Glu Ala Leu His Gly Pro Pro Lys Lys Ile Leu Val Glu Gly Ala  
 100 105 110  
 Asn Ala Ala Leu Leu Asp Ile Asp Phe Gly Thr Tyr Pro Phe Val Thr  
 115 120 125  
 Ser Ser Asn Cys Thr Val Gly Gly Val Cys Thr Gly Leu Gly Ile Pro  
 130 135 140  
 Pro Gln Asn Ile Gly Asp Val Tyr Gly Val Val Lys Ala Tyr Thr Thr  
 145 150 155 160  
 Arg Val Gly Ile Gly Ala Phe Pro Thr Glu Gln Ile Asn Glu Ile Gly  
 165 170 175  
 Gly Leu Leu Gln Thr Arg Gly His Glu Trp Gly Val Thr Thr Gly Arg  
 180 185 190  
 Lys Arg Arg Cys Gly Trp Leu Asp Leu Met Ile Leu Arg Tyr Ala His  
 195 200 205  
 Met Val Asn Gly Phe Thr Ala Leu Ala Leu Thr Lys Leu Asp Ile Leu  
 210 215 220  
 Asp Val Leu Gly Glu Val Lys Val Gly Val Ser Tyr Lys Leu Asn Gly  
 225 230 235 240  
 Lys Arg Ile Pro Tyr Phe Pro Ala Asn Gln Glu Met Leu Gln Lys Val  
 245 250 255  
 Glu Val Glu Tyr Glu Thr Leu Pro Gly Trp Lys Ala Asp Thr Thr Gly  
 260 265 270  
 Ala Arg Arg Trp Glu Asp Leu Pro Pro Gln Ala Gln Asn Tyr Ile Arg  
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<210> 2783

<211> 2376

<212> DNA

<213> Homo sapiens

<400> 2783

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 1320



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 2280  
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 2376

&lt;210&gt; 2784

&lt;211&gt; 361

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2784

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1				5				10						15	
Glu	Val	Leu	Gly	Ile	Lys	Arg	Asp	Lys	Ser	Asp	Ser	Pro	Ala	Ile	Gln
		20						25				30			
Leu	Arg	Leu	Lys	Glu	Pro	Met	Asp	Val	Asp	Val	Glu	Asp	Tyr	Tyr	Pro
		35					40				45				
Ala	Phe	Leu	Asp	Met	Val	Arg	Ser	Leu	Leu	Asp	Gly	Asn	Ile	Asp	Ser
	50				55					60					
Ser	Gln	Tyr	Glu	Asp	Ser	Leu	Arg	Glu	Met	Phe	Thr	Ile	His	Ala	Tyr
65					70					75				80	
Ile	Ala	Phe	Thr	Met	Asp	Lys	Leu	Ile	Gln	Ser	Ile	Val	Arg	Gln	Leu

BNSDOCID: <WO\_\_\_0058473A2\_I\_>

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 492

<210> 2786  
 <211> 155  
 <212> PRT  
 <213> Homo sapiens

<400> 2786  
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 20 25 30  
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 35 40 45  
 Ile Leu Asn Val Arg Arg Thr Cys Arg Lys Leu Ala Ala Leu Cys Leu  
 50 55 60  
 Asp Lys Ser Leu Ile His Thr Val Leu Leu Gln Lys Asp Tyr Gln Ala  
 65 70 75 80  
 Ser Glu Asp Lys Val Arg Gln Leu Val Lys Glu Ile Gly Arg Glu Ile  
 85 90 95  
 Gln Gln Leu Ser Met Ala Gly Cys Tyr Trp Leu Pro Gly Ser Thr Val  
 100 105 110  
 Glu His Val Ala Arg Cys Pro Gln Pro Gly Glu Gly Glu Pro Leu Gly  
 115 120 125  
 Leu Pro Pro His Phe Pro Ala Pro Leu Gln Asp Ala Leu Gly Pro Ala  
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 Ala Pro Ala Leu Ala Gly His Arg Arg Glu Pro  
 145 150 155

<210> 2787  
 <211> 299  
 <212> DNA  
 <213> Homo sapiens

<400> 2787  
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 180  
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 299

<210> 2788  
 <211> 95  
 <212> PRT

<213> Homo sapiens

<400> 2788

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Met Thr Arg Asp Ser Gly Met Lys Gln Lys His Ala Ala Ser Thr Ser
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Met Trp Gly Glu Glu Pro Tyr Ser Asp Ile Ser Val Ala Lys Thr Arg
          20          25          30
Ala Gly His Ala Thr Met His Arg His Gly Ser Ile Leu Leu Val Gly
          35          40          45
Gly Ser His His Leu Leu Cys Pro Ala Leu Cys Trp Val Leu Leu Gln
          50          55          60
Val Leu Leu His Pro Ala Leu Glu Thr Ile Leu Trp Gly Ile Asp Ser
65          70          75          80
Glu Glu Ile Thr Asp Gly Arg Asp Phe Leu Pro Gln Leu Thr Gln
          85          90          95

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<210> 2789

<211> 492

<212> DNA

<213> Homo sapiens

<400> 2789

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120
gcgaggccag gctgtgcagt gggggccagca ccagctgcag cttctcctcc agcagggtcca
180
ccctggactg cagcctctgc acttcttctc tcattgcact gtccactcct gcgggcagag
240
ccaggcgctg ggtcacggcc ggccggctcc ccacccacac ccccagggtc cctcctgtc
300
cccagggaga ggcagagcca gaagactcag gcccaggcct ctgccacccc cgctgcctgc
360
ctggcgctgg ccagaggtct caggctatgc cgcctaagta cgtcggggcg ggtggctctg
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tcgttccgaa tt
492

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<210> 2790

<211> 141

<212> PRT

<213> Homo sapiens

<400> 2790

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Arg Lys Ser Ala Arg Ser Gly Ser Arg Cys Gly Arg Ala Ala Gly Arg
 1           5           10           15
Ser Ala Pro Gly Gly Cys Arg Gly Pro Gly Ala His Ala Pro Val Pro
          20          25          30
Ala Arg Pro Gly Cys Ala Val Gly Pro Ala Pro Ala Ala Ala Ser Pro
          35          40          45
Pro Ala Gly Pro Pro Trp Thr Ala Ala Ser Ala Leu Leu Pro Ser Leu

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50		55		60
His Cys Pro Leu Leu Arg Ala Glu Pro Gly Ala Gly Ser Arg Pro Ala				
65	70	75	80	
Gly Ser Pro Pro Thr Pro Pro Gly Leu Pro Pro Val Pro Arg Glu Arg				
	85	90	95	
Gln Ser Gln Lys Thr Gln Ala Gln Ala Ser Ala Thr Pro Ala Ala Cys				
	100	105	110	
Leu Ala Leu Ala Arg Gly Leu Arg Leu Cys Arg Leu Ser Thr Ser Gly				
	115	120	125	
Arg Val Ala Leu Arg Arg Gly Ser Gly Ser Arg Pro Arg				
130	135	140		

&lt;210&gt; 2791

&lt;211&gt; 1271

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2791

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120
ccaaattccc atttttcttc caatcacatt taaaatttca atatgttgca ggcagtatgt
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gtaagattat atccaaatat ttactcctgg ttgctcctct tgggcaagct gtgaatatga
240
tcaaaatatt taaagaagga agaaggtaaa gatctaaaat atgacatgaa aatacccaga
300
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660
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720
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840
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900
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960
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1020
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1080

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<210> 2792

<211> 123

<212> PRT

<213> Homo sapiens

<400> 2792

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Phe	Thr	Phe	Thr	Ile	Pro	Asp	Val	Glu	Asp	Ser	Ser	Gln	Arg	Pro	Asp
			20					25					30		
Gln	Gly	Pro	Gln	Arg	Pro	Pro	Pro	Glu	Gly	Leu	Leu	Pro	Arg	Pro	Pro
		35					40					45			
Gly	Asp	Ser	Gly	Asn	Gln	Asp	Asp	Gly	Pro	Gln	Gln	Arg	Pro	Pro	Lys
	50					55					60				
Pro	Gly	Gly	His	His	Arg	His	Pro	Pro	Pro	Pro	Pro	Phe	Gln	Asn	Gln
65				70					75					80	
Gln	Arg	Pro	Pro	Gln	Arg	Gly	His	Arg	Gln	Leu	Ser	Leu	Pro	Arg	Phe
			85						90					95	
Pro	Ser	Val	Ser	Leu	Gln	Glu	Ala	Ser	Ser	Phe	Phe	Arg	Arg	Asp	Arg
		100						105						110	
Pro	Ala	Arg	His	Pro	Gln	Glu	Gln	Pro	Leu	Trp					
		115					120								

<210> 2793

<211> 847

<212> DNA

<213> Homo sapiens

<400> 2793

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 180  
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 240  
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 300  
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 420  
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 480

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 540  
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 720  
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<210> 2794

<211> 139

<212> PRT

<213> Homo sapiens

<400> 2794

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			20					25					30		
Gln	Val	Ile	Leu	Val	Gln	Val	Asn	Pro	Gly	Glu	Ala	Phe	Thr	Ile	Arg
		35					40				45				
Arg	Glu	Asp	Gly	Gln	Phe	Gln	Cys	Ile	Thr	Gly	Pro	Ala	Gln	Val	Pro
	50					55					60				
Met	Met	Ser	Pro	Asn	Gly	Ser	Val	Pro	Pro	Ile	Tyr	Val	Pro	Pro	Gly
65				70				75						80	
Tyr	Ala	Pro	Gln	Val	Ile	Glu	Asp	Asn	Gly	Val	Arg	Arg	Val	Val	Val
			85					90					95		
Val	Pro	Gln	Ala	Pro	Glu	Phe	His	Pro	Gly	Ser	His	Thr	Val	Leu	His
			100					105					110		
Arg	Ser	Pro	His	Pro	Pro	Leu	Pro	Gly	Phe	Ile	Pro	Val	Pro	Thr	Met
		115					120					125			
Met	Pro	Pro	His	His	Val	Ile	Cys	Thr	His	Pro					
		130					135								

<210> 2795

<211> 1022

<212> DNA

<213> Homo sapiens

<400> 2795

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 180  
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 240

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 720  
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 gaaaagtcac ggacctgagg cttggcttct tcttgggata cattcacagg gagcagctcc  
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 1020  
 gt  
 1022

<210> 2796  
 <211> 56  
 <212> PRT  
 <213> Homo sapiens

<400> 2796  
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 Gly Glu Glu Ala Glu Val Leu Glu Pro Arg Gly Ser Ser Ser Gly Cys  
 35 40 45  
 Ser Ala Pro Leu Gly Ala Val Val  
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<210> 2797  
 <211> 475  
 <212> DNA  
 <213> Homo sapiens

<400> 2797  
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 120



ctgaactcca tcagcgagtc cccgcatgag cgcattgcacc cctacatcga gctggcctgg  
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 ggctttctcca ccgtgcttgg cactctactc ttcctggccg aggtggtgct gctctgctgg  
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 300  
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 360  
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<210> 2798  
 <211> 158  
 <212> PRT  
 <213> Homo sapiens

<400> 2798  
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 Glu Ala Val Ser Asn Ile His Asn Leu Asn Ser Ile Ser Glu Ser Pro  
 35 40 45  
 His Glu Arg Met His Pro Tyr Ile Glu Leu Ala Trp Gly Phe Ser Thr  
 50 55 60  
 Val Leu Gly Ile Leu Leu Phe Leu Ala Glu Val Val Leu Leu Cys Trp  
 65 70 75 80  
 Ile Lys Phe Leu Pro Val Asp Ala Arg Arg Gln Pro Gly Pro Pro Pro  
 85 90 95  
 Gly Pro Gly Ser His Thr Gly Trp Gln Ala Ala Leu Val Ser Thr Ile  
 100 105 110  
 Ile Met Val Pro Val Gly Leu Ile Phe Val Val Phe Thr Ile His Phe  
 115 120 125  
 Tyr Arg Ser Leu Val Arg His Lys Thr Glu Arg His Asn Arg Glu Ile  
 130 135 140  
 Glu Glu Leu His Lys Leu Lys Val Gln Leu Asp Gly His Glu  
 145 150 155

<210> 2799  
 <211> 2872  
 <212> DNA  
 <213> Homo sapiens

<400> 2799  
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 180  
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<211> 294

<212> PRT

<213> Homo sapiens

<400> 2800

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			20					25					30		
Ile	Ala	Leu	Leu	Lys	Asp	Gln	Glu	Pro	Gly	Ala	Phe	Ile	Ile	Arg	Asp
		35				40					45				
Ser	His	Ser	Phe	Arg	Gly	Ala	Tyr	Gly	Leu	Ala	Met	Lys	Val	Ser	Ser
	50				55					60					
Pro	Pro	Pro	Thr	Ile	Met	Gln	Gln	Asn	Lys	Lys	Gly	Asp	Met	Thr	His
65				70					75					80	
Glu	Leu	Val	Arg	His	Phe	Leu	Ile	Glu	Thr	Gly	Pro	Arg	Gly	Val	Lys
			85					90						95	
Leu	Lys	Gly	Cys	Pro	Asn	Glu	Pro	Asn	Phe	Gly	Ser	Leu	Ser	Ala	Leu

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Val Tyr Gln His Ser Ile Ile Pro Leu Ala Leu Pro Cys Lys Leu Val
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Ile Pro Asn Arg Asp Pro Thr Asp Glu Ser Lys Asp Ser Ser Gly Pro
      130      135      140
Ala Asn Ser Thr Ala Asp Leu Leu Lys Gln Gly Ala Ala Cys Asn Val
      145      150      155      160
Leu Phe Ile Asn Ser Val Asp Met Glu Ser Leu Thr Gly Pro Gln Ala
      165      170      175
Ile Ser Lys Ala Thr Ser Glu Thr Leu Ala Ala Asp Pro Thr Pro Ala
      180      185      190
Ala Thr Ile Val His Phe Lys Val Ser Ala Gln Gly Ile Thr Leu Thr
      195      200      205
Asp Asn Gln Arg Lys Leu Phe Phe Arg Arg His Tyr Pro Leu Asn Thr
      210      215      220
Val Thr Phe Cys Asp Leu Asp Pro Gln Glu Arg Lys Trp Met Lys Thr
      225      230      235      240
Glu Gly Gly Ala Pro Ala Lys Leu Phe Gly Phe Val Ala Arg Lys Gln
      245      250      255
Gly Ser Thr Thr Asp Asn Ala Cys His Leu Phe Ala Glu Leu Asp Pro
      260      265      270
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 <212> DNA  
 <213> Homo sapiens

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 <213> Homo sapiens

<400> 2802  
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 Asn Met Glu Ile Cys Asp Ile Ile Asn Glu Thr Glu Glu Gly Pro Lys  
 35 40 45  
 Asp Ala Ile Arg Ala Leu Lys Lys Arg Leu Asn Gly Asn Arg Asn Tyr  
 50 55 60  
 Arg Glu Val Met Leu Ala Leu Thr Val Leu Glu Thr Cys Val Lys Asn  
 65 70 75 80  
 Cys Gly His Arg Phe His Ile Leu Val Ala Asn Arg Asp Phe Ile Asp  
 85 90 95  
 Ser Val Leu Val Lys Ile Ile Ser Pro Lys Asn Asn Pro Pro Thr Ile  
 100 105 110  
 Val Gln Asp Lys Val Leu Ala Leu Ile Gln Ala Trp Ala Asp Ala Phe  
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<210> 2803  
 <211> 459  
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 <213> Homo sapiens

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<210> 2804  
 <211> 153  
 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 2804

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 Gly Arg His Arg Trp Pro Pro Pro Pro Gly Gly Ala Ala Pro Ala Pro  
 20 25 30  
 Val Arg Gly Met Thr Asp Ser Pro Pro Pro Ala Val Gly Cys Val Leu  
 35 40 45  
 Ser Gly Leu Thr Gly Thr Leu Ser Pro Ser Arg Ser Cys Ser Val Cys  
 50 55 60  
 Thr Ser Pro Ser Ser Pro Pro Ala Thr Gly Thr Gly Pro Ala Ala Pro  
 65 70 75 80  
 Thr Ala Ile Cys Gln Pro Pro Cys Arg Asn Gly Gly Ser Cys Val Gln  
 85 90 95  
 Pro Gly Arg Cys Arg Cys Pro Ala Gly Trp Arg Gly Asp Thr Cys Gln  
 100 105 110  
 Ser Asp Val Asp Xaa Cys Asn Glu Gly Arg Ser Ala Glu Ala Ala Val  
 115 120 125  
 Gln Gly Gly Pro Ala Gly Gly Glu Ala Ala Ala Gly Thr Gly Pro Thr  
 130 135 140  
 Ala Gln Pro Gly Leu Ala Gly Thr Gly  
 145 150

&lt;210&gt; 2805

&lt;211&gt; 771

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2805

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<210> 2806  
 <211> 187  
 <212> PRT  
 <213> Homo sapiens

<400> 2806

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		20					25					30			
Lys	Ile	Glu	Arg	Ile	Gln	Asn	Pro	Asp	Leu	Trp	Asn	Ser	Tyr	Gln	Ala
	35					40					45				
Lys	Lys	Lys	Thr	Met	Asp	Ala	Lys	Asn	Gly	Gln	Thr	Met	Asn	Glu	Lys
	50				55					60					
Gln	Leu	Phe	His	Gly	Thr	Asp	Ala	Gly	Ser	Val	Pro	His	Val	Asn	Arg
65				70					75					80	
Asn	Gly	Phe	Asn	Arg	Ser	Tyr	Ala	Gly	Lys	Asn	Ala	Val	Ala	Tyr	Gly
		85						90					95		
Lys	Gly	Thr	Tyr	Phe	Ala	Val	Asn	Ala	Asn	Tyr	Ser	Ala	Asn	Asp	Thr
	100						105					110			
Tyr	Ser	Arg	Pro	Asp	Ala	Asn	Gly	Arg	Lys	His	Val	Tyr	Tyr	Val	Arg
	115					120					125				
Val	Leu	Thr	Gly	Ile	Tyr	Thr	His	Gly	Asn	His	Ser	Leu	Ile	Val	Pro
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Pro	Ser	Lys	Asn	Pro	Gln	Asn	Pro	Thr	Asp	Leu	Tyr	Asp	Thr	Val	Thr
145				150					155					160	
Asp	Asn	Val	His	His	Pro	Ser	Leu	Phe	Val	Ala	Phe	Tyr	Asp	Tyr	Gln
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<210> 2807  
 <211> 1660  
 <212> DNA  
 <213> Homo sapiens

<400> 2807

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&lt;210&gt; 2808

&lt;211&gt; 390

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2808

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Glu	Leu	Ala	Gly	Cys	Ala	Ser	Cys	Leu	Thr	Val	Gln	Asp	Asn	Trp	Thr
		20						25					30		
Leu	Glu	Leu	Glu	Ser	Ser	Gln	Asp	Ile	Gln	Asp	Val	Leu	Asp	Ala	Asn
	35					40					45				
Lys	Ser	Leu	Pro	Glu	Ser	Ser	Leu	Thr	Asp	Leu	Leu	Ser	Asp	Asn	Phe



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Cys Glu Pro Leu Val	Ala Ser Leu Trp Met Lys Leu Gly Asn Thr Gly	80
	85	90
Ala Met Arg Arg Cys Val Lys Leu Thr Val Ala Leu Glu Thr Ala Glu		95
	100	105
Cys Glu Phe Pro Pro His Leu Asp Val Tyr Ile Glu Asp Pro His Leu		110
	115	120
Pro Pro Ser Leu Gly Leu Leu Pro Gly Ala Arg Val His Phe Ser Gln		125
	130	135
Leu Glu Lys Arg Val Ser Arg Ser His Asn Val Tyr Cys Cys Phe Arg		140
145	150	155
Ser Ser Thr Tyr Val Gln Val Leu Ser Phe Pro Pro Glu Thr Thr Ile		160
	165	170
Ser Val Pro Leu Pro His Ile Tyr Leu Ala Glu Leu Leu Gln Gly Gly		175
	180	185
Gln Ser Pro Phe Gln Ala Thr Ala Ser Cys His Ile Val Ser Val Phe		190
	195	200
Ser Leu Gln Leu Phe Trp Val Cys Ala Tyr Cys Thr Ser Ile Cys Arg		205
210	215	220
Gln Gly Lys Cys Thr Arg Leu Gly Ser Thr Cys Pro Thr Gln Thr Ala		225
	230	235
Ile Ser Gln Ala Ile Ile Arg Leu Leu Val Glu Asp Gly Thr Ala Glu		240
	245	250
Ala Val Val Thr Cys Arg Asn His His Val Ala Ala Ala Leu Gly Leu		255
	260	265
Cys Pro Arg Glu Trp Ala Ser Leu Asp Phe Val Gln Val Pro Gly		270
	275	280
Arg Val Val Leu Gln Phe Ala Gly Pro Gly Ala Gln Leu Glu Ser Ser		285
290	295	300
Ala Arg Val Asp Glu Pro Met Thr Met Phe Leu Trp Thr Leu Cys Thr		305
	310	315
Ser Pro Ser Val Leu Arg Pro Ile Val Leu Ser Phe Glu Leu Glu Arg		320
	325	330
Lys Pro Ser Lys Ile Val Pro Leu Glu Pro Pro Arg Leu Gln Arg Phe		335
	340	345
Gln Cys Gly Glu Leu Pro Phe Leu Thr His Val Asn Pro Arg Leu Arg		350
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Leu Ser Cys Leu Ser Ile Arg Glu Ser Glu Tyr Ser Ser Ser Leu Gly		365
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385	390	

&lt;210&gt; 2809

&lt;211&gt; 1502

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2809

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&lt;210&gt; 2810

&lt;211&gt; 102

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2810

Glu Cys Ala Cys Ala Arg Val Cys Val Cys Val Arg Leu Cys Val Arg  
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 Val Cys Val Cys Ala Arg Leu Cys Val Cys Val Cys Ala Ser Val Cys  
 20 25 30  
 Ala Cys Val Cys Ala Cys Val Arg Leu Cys Val Arg Leu Cys Ala Cys  
 35 40 45  
 Val Cys Ala Ser Val Cys Met Cys Ala Arg Ala Xaa Val Cys Val Cys  
 50 55 60  
 Thr Cys Val Xaa Leu Cys Thr Arg Val Cys Val Cys Val His Ala Cys  
 65 70 75 80  
 Val Cys Val Cys Ala Arg Ala Cys Thr Ser Pro Pro Glu His Leu Gly  
 85 90 95  
 Phe Gly Thr Arg Trp Phe  
 100

&lt;210&gt; 2811

&lt;211&gt; 591

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2811

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 120  
 caaaggagac cataaagtgt aggatatttc ctggttagtg gctgccgggt aatcacgatg  
 180  
 catccatctt cctcgggctc gcagccctca gtagccagaa ggcagtctcc ttccttgggg  
 240  
 ggcaaaaagcc ccgagcccag cctgccngt tgccccgctc ccgcggtgga tgaacctcaa  
 300  
 cccnnttccc aggtctctcc tggccccagg gtcccaggac ccccgagacc ctgggggtgcg  
 360  
 gcgccactga ggcccagacc gggggaagga gaccctgtca ctcgggagcg gagccctgtc  
 420  
 ccgggagcga cggaaatgcc tcctccacgc cccaagggtc ctgctccgcc aggcccaacc  
 480  
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 540  
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 591

&lt;210&gt; 2812

&lt;211&gt; 131

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2812

Met His Pro Ser Ser Ser Ala Ser Gln Pro Ser Val Ala Arg Arg Gln  
 1 5 10 15  
 Ser Pro Ser Leu Gly Gly Lys Ser Pro Glu Pro Ser Leu Pro Xaa Cys  
 20 25 30  
 Pro Ala Pro Ala Val Asp Glu Pro Gln Pro Xaa Ser Gln Ala Pro Pro

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      35              40              45
Gly Pro Arg Val Pro Gly Pro Pro Arg Pro Trp Gly Ala Ala Pro Leu
      50              55              60
Arg Pro Arg Pro Gly Glu Gly Asp Pro Val Thr Arg Glu Arg Ser Pro
65              70              75              80
Val Pro Gly Ala Thr Glu Met Pro Pro Pro Arg Pro Lys Val Pro Ala
      85              90              95
Pro Pro Gly Pro Thr Gly Arg Ser Pro Arg Ala Ala Val Gly His His
      100              105              110
Arg Ala Ala Gly Pro Pro Gly Cys Val Gly Pro Ser Leu Ser Gly Gln
      115              120              125
Leu Gly Ser
      130

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<210> 2813  
 <211> 2417  
 <212> DNA  
 <213> Homo sapiens

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<400> 2813
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120
tgctgcagtt cagtgttggt ccagatttta tgcttggtgt tagattttctc tgttctctaa
180
tttggttaagt ttgtcttttaa tatttcacag gctttcttga tcatggatgg tgaagatata
240
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gaacgaaatg cattttttaga aagtgaactt gatgaaaagg aatctttgtt ggtctctgta
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900
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960
gctaggatat cagcactaaa catcgtgggg gatctcttac ggaaagtagg ggctttagaa
1020

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1140  
catacatctt tcttcgacaa aggggcagta aacggctttg accccgctcc tctcctcct  
1200  
ggtctgggct cctcgcgtcc atcgtcagcg ccgggtatgt gcctctcagt gtgtgagtgc  
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2400  
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2417

&lt;210&gt; 2814

&lt;211&gt; 471

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2814

```

Phe Val Lys Phe Val Phe Asn Ile Ser Gln Ala Phe Leu Ile Met Asp
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Gly Glu Asp Ile Pro Asp Phe Ser Ser Leu Lys Glu Glu Thr Ala Tyr
      20           25           30
Trp Lys Glu Leu Ser Leu Lys Tyr Lys Gln Ser Phe Gln Glu Ala Arg
      35           40           45
Asp Glu Leu Val Glu Phe Gln Glu Gly Ser Arg Glu Leu Glu Ala Glu
      50           55           60
Leu Glu Ala Gln Leu Val Gln Ala Glu Gln Arg Asn Arg Asp Leu Gln
      65           70           75           80
Ala Asp Asn Gln Arg Leu Lys Tyr Glu Val Glu Ala Leu Lys Glu Lys
      85           90           95
Leu Glu His Gln Tyr Ala Gln Ser Tyr Lys Gln Val Ser Val Leu Glu
      100          105          110
Asp Asp Leu Ser Gln Thr Arg Ala Ile Lys Glu Gln Leu His Lys Tyr
      115          120          125
Val Arg Glu Leu Glu Gln Ala Asn Asp Asp Leu Glu Arg Ala Lys Arg
      130          135          140
Ala Thr Ile Val Ser Leu Glu Thr Leu Asn Lys Leu Asn Gln Ala Ile
      145          150          155          160
Glu Arg Asn Ala Phe Leu Glu Ser Glu Leu Asp Glu Lys Glu Ser Leu
      165          170          175
Leu Val Ser Val Gln Arg Leu Lys Asp Glu Ala Arg Asp Leu Arg Gln
      180          185          190
Glu Leu Ala Val Arg Glu Arg Gln Gln Glu Val Thr Arg Lys Ser Ala
      195          200          205
Pro Ser Ser Pro Thr Leu Asp Cys Glu Lys Met Asp Ser Ala Val Gln
      210          215          220
Ala Ser Leu Ser Leu Pro Ala Thr Pro Val Gly Lys Gly Thr Glu Asn
      225          230          235          240
Thr Phe Pro Ser Pro Lys Ala Ile Pro Asn Gly Phe Gly Thr Ser Pro
      245          250          255
Leu Thr Pro Ser Ala Arg Ile Ser Ala Leu Asn Ile Val Gly Asp Leu
      260          265          270
Leu Arg Lys Val Gly Ala Leu Glu Ser Lys Leu Ala Ala Cys Arg Asn
      275          280          285
Phe Ala Lys Asp Gln Ala Ser Arg Lys Ser Tyr Ile Ser Gly Asn Val
      290          295          300
Asn Cys Gly Val Leu Asn Gly Asn Gly Thr Lys Phe Ser Arg Ser Gly
      305          310          315          320
His Thr Ser Phe Phe Asp Lys Gly Ala Val Asn Gly Phe Asp Pro Ala
      325          330          335
Pro Pro Pro Pro Gly Leu Gly Ser Ser Arg Pro Ser Ser Ala Pro Gly
      340          345          350
Met Cys Leu Ser Val Cys Glu Cys Leu Ala Ser Arg Gly Ala Pro Ala
      355          360          365
Leu Leu Gln Gln Pro Arg Thr Pro Thr Pro His Pro Ser Val Pro Gly
      370          375          380
Pro Ser Pro Val Pro Leu Arg Leu Pro Pro His Gly Trp Gln Arg Ala
      385          390          395          400
Gly Cys Met Gln Trp Arg Leu Leu Gly Pro Ala Gln Pro Arg Asn Ser
      405          410          415
Ala Arg Tyr Gln Tyr Trp Leu Phe Ser Leu Leu Ala Val Val Pro Leu

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	420		425		430										
Val	Ser	His	Asp	Cys	Thr	Phe	Val	Gly	Arg	Lys	Val	Ile	His	Thr	Cys
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Ile	Thr	Trp	Ser	Leu	Asp	Ala	Glu	Val	Pro	Ile	His	His	Thr	Cys	Pro
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Ile	Ala	Pro	Thr	Leu	Leu	Tyr									
465							470								

&lt;210&gt; 2815

&lt;211&gt; 1421

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2815

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 1320  
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<210> 2816

<211> 307

<212> PRT

<213> Homo sapiens

<400> 2816

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Val	Gly	Gly	Thr	Glu	His	Ala	Tyr	Arg	Pro	Gly	Arg	Arg	Val	Cys	Ala
			20					25					30		
Val	Arg	Ala	His	Gly	Asp	Pro	Val	Ser	Glu	Ser	Phe	Val	Gln	Arg	Val
		35				40						45			
Tyr	Gln	Pro	Phe	Leu	Thr	Thr	Cys	Asp	Gly	His	Arg	Ala	Cys	Ser	Thr
	50					55					60				
Tyr	Arg	Thr	Ile	Tyr	Arg	Thr	Ala	Tyr	Arg	Arg	Ser	Pro	Gly	Leu	Ala
65				70					75					80	
Pro	Ala	Arg	Pro	Arg	Tyr	Ala	Cys	Cys	Pro	Gly	Trp	Lys	Arg	Thr	Ser
			85					90						95	
Gly	Leu	Pro	Gly	Ala	Cys	Gly	Ala	Ala	Ile	Cys	Gln	Pro	Pro	Cys	Arg
			100				105						110		
Asn	Gly	Gly	Ser	Cys	Val	Gln	Pro	Gly	Arg	Cys	Arg	Cys	Pro	Ala	Gly
	115						120					125			
Trp	Arg	Gly	Asp	Thr	Cys	Gln	Ser	Asp	Val	Asp	Glu	Cys	Ser	Ala	Arg
	130					135					140				
Arg	Gly	Gly	Cys	Pro	Gln	Arg	Cys	Val	Asn	Thr	Ala	Gly	Ser	Tyr	Trp
145				150					155					160	
Cys	Gln	Cys	Trp	Glu	Gly	His	Ser	Leu	Ser	Ala	Asp	Gly	Thr	Leu	Cys
			165					170						175	
Val	Pro	Lys	Gly	Gly	Pro	Pro	Arg	Val	Ala	Pro	Asn	Pro	Thr	Gly	Val
		180					185						190		
Asp	Ser	Ala	Met	Lys	Glu	Glu	Val	Gln	Arg	Leu	Gln	Ser	Arg	Val	Asp
	195						200					205			
Leu	Leu	Glu	Glu	Lys	Leu	Gln	Leu	Val	Leu	Ala	Pro	Leu	His	Ser	Leu
	210				215						220				
Ala	Ser	Gln	Ala	Gly	Ala	Trp	Ala	Pro	Gly	Pro	Arg	Gln	Pro	Pro	Gly
225				230					235					240	
Ala	Leu	Leu	Pro	Ala	Ala	Arg	Pro	His	Arg	Leu	Pro	Glu	Arg	Ala	Asp
			245					250						255	
Phe	Leu	Pro	Gly	Gly	Ala	Ala	Gly	Val	Leu	Leu	Leu	Gln	Glu	Arg	Leu
		260					265						270		
Xaa	Asp	Cys	Pro	Ala	Pro	Gln	Ala	Gly	Leu	Ser	Pro	Ser	Arg	Arg	Pro
	275					280						285			
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Arg	Gly	Asp													



305

<210> 2817  
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 <212> DNA  
 <213> Homo sapiens

<400> 2817  
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 219

<210> 2818  
 <211> 73  
 <212> PRT  
 <213> Homo sapiens

<400> 2818  
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 20 25 30  
 Pro Gly Ala Ser Leu Gly Pro Gly Val Leu Leu Arg Ala Glu Phe His  
 35 40 45  
 Gln His Gln His Thr His Gln His Thr His Gln His Thr His Gln His  
 50 55 60  
 Gln His Thr Phe Ala Pro Phe Thr Arg  
 65 70

<210> 2819  
 <211> 730  
 <212> DNA  
 <213> Homo sapiens

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 240  
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<210> 2820

<211> 195

<212> PRT

<213> Homo sapiens

<400> 2820

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			20				25						30		
Ser	Ala	Gly	Ala	Arg	Gly	His	Thr	Gly	Pro	Lys	Gly	Gln	Lys	Gly	Ser
		35				40						45			
Met	Gly	Ala	Pro	Gly	Glu	Arg	Cys	Lys	Ser	His	Tyr	Ala	Ala	Phe	Ser
	50					55					60				
Val	Gly	Arg	Glu	Ala	His	Ala	Gln	Gln	Pro	Leu	Leu	Pro	Asp	Val	Ile
65					70					75				80	
Phe	Asp	Thr	Glu	Phe	Val	Asn	Leu	Tyr	Asp	His	Phe	Asn	Met	Phe	Thr
			85						90					95	
Gly	Lys	Phe	Tyr	Cys	Tyr	Val	Pro	Gly	Leu	Tyr	Phe	Phe	Ser	Leu	Asn
			100					105						110	
Val	His	Thr	Trp	Asn	Gln	Lys	Glu	Thr	Tyr	Leu	His	Ile	Met	Lys	Asn
		115				120						125			
Glu	Glu	Glu	Val	Val	Ile	Leu	Phe	Ala	Gln	Val	Gly	Asp	Arg	Ser	Ile
		130				135					140				
Met	Gln	Ser	Gln	Ser	Leu	Met	Leu	Glu	Leu	Arg	Glu	Gln	Asp	Gln	Val
145					150					155				160	
Trp	Val	Arg	Leu	Tyr	Lys	Gly	Glu	Arg	Glu	Asn	Ala	Ile	Phe	Ser	Glu
			165					170						175	
Glu	Leu	Asp	Thr	Tyr	Ile	Thr	Phe	Ser	Gly	Tyr	Leu	Val	Lys	His	Ala
			180					185						190	
Thr	Glu	Pro													
		195													

<210> 2821

<211> 1746

<212> DNA

<213> Homo sapiens

<400> 2821

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cctagg

1746

<210> 2822

<211> 424

<212> PRT

<213> Homo sapiens

<400> 2822

Met	Ala	Gln	Leu	Gln	Thr	Arg	Phe	Tyr	Thr	Asp	Asn	Lys	Lys	Tyr	Ala
1				5					10					15	
Val	Asp	Asp	Val	Pro	Phe	Ser	Ile	Pro	Ala	Thr	Ser	Glu	Val	Ala	Asp
			20					25					30		
Leu	Ser	Asn	Ile	Ile	Asn	Lys	Leu	Leu	Glu	Thr	Lys	Asn	Glu	Leu	His
		35				40						45			
Lys	His	Val	Glu	Phe	Asp	Phe	Leu	Ile	Lys	Gly	Gln	Phe	Leu	Arg	Met
	50					55					60				
Pro	Leu	Asp	Lys	His	Met	Glu	Met	Glu	Asp	Ile	Ser	Ser	Glu	Glu	Val
65					70				75						80
Val	Glu	Ile	Glu	Tyr	Val	Glu	Lys	Tyr	Thr	Ala	Pro	Gln	Pro	Glu	Gln
			85						90					95	
Cys	Met	Phe	His	Asp	Asp	Trp	Ile	Ser	Ser	Ile	Lys	Gly	Ala	Glu	Glu
			100					105					110		
Trp	Ile	Leu	Thr	Gly	Ser	Tyr	Gly	Lys	Thr	Ser	Arg	Ile	Trp	Ser	Leu
		115					120					125			
Glu	Gly	Lys	Ser	Ile	Met	Thr	Ile	Val	Gly	His	Thr	Asp	Val	Val	Lys
	130					135					140				
Asp	Val	Ala	Trp	Val	Lys	Lys	Asp	Ser	Leu	Ser	Cys	Leu	Leu	Xaa	Glu
145					150					155					160
Cys	Phe	Tyr	Gly	Ser	Asp	Tyr	Ser	Leu	Met	Gly	Val	Glu	Cys	Arg	Glu
			165					170						175	
Lys	Gln	Ser	Glu	Ser	Pro	Thr	Leu	Leu	Xaa	Arg	Gly	His	Ala	Gly	Ser
			180					185					190		
Val	Asp	Ser	Ile	Ala	Val	Asp	Gly	Ser	Gly	Thr	Lys	Phe	Cys	Ser	Gly
	195						200					205			
Ser	Trp	Asp	Lys	Met	Leu	Lys	Ile	Trp	Ser	Thr	Val	Pro	Thr	Asp	Glu
	210					215					220				
Glu	Asp	Glu	Met	Glu	Glu	Ser	Thr	Asn	Arg	Pro	Arg	Lys	Lys	Gln	Lys
225					230					235					240
Thr	Glu	Gln	Leu	Gly	Leu	Thr	Arg	Thr	Pro	Ile	Val	Thr	Leu	Ser	Gly
			245					250						255	
His	Met	Glu	Ala	Val	Ser	Ser	Val	Leu	Trp	Ser	Asp	Ala	Glu	Glu	Ile
		260						265					270		
Cys	Ser	Ala	Ser	Trp	Asp	His	Thr	Ile	Arg	Val	Trp	Asp	Val	Glu	Ser
	275					280						285			
Gly	Ser	Leu	Lys	Ser	Thr	Leu	Thr	Gly	Asn	Lys	Val	Phe	Asn	Cys	Ile
	290					295					300				
Ser	Tyr	Ser	Pro	Leu	Cys	Lys	Arg	Leu	Ala	Ser	Gly	Ser	Thr	Asp	Arg
305					310					315					320
His	Ile	Arg	Leu	Trp	Asp	Pro	Arg	Thr	Lys	Asp	Gly	Ser	Leu	Val	Ser
			325					330						335	
Leu	Ser	Leu	Thr	Ser	His	Thr	Gly	Trp	Val	Thr	Ser	Val	Lys	Trp	Ser

```

          340          345          350
Pro Thr His Glu Gln Gln Leu Ile Ser Gly Ser Leu Asp Asn Ile Val
          355          360          365
Lys Leu Trp Asp Thr Arg Ser Cys Lys Ala Pro Leu Tyr Asp Leu Ala
          370          375          380
Ala His Glu Asp Lys Val Leu Ser Val Asp Trp Thr Asp Thr Gly Leu
          385          390          395          400
Leu Leu Ser Gly Gly Ala Asp Asn Lys Leu Tyr Ser Tyr Arg Tyr Ser
          405          410          415
Pro Thr Thr Ser His Val Gly Ala
          420

```

&lt;210&gt; 2823

&lt;211&gt; 461

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2823

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60
gttggtgtctg tcagtggggg aagggggcgg aaccctcatg ctgggggttcg ggtggacgtg
120
ggtgggtggt gacccctggt gggaggcaga cacagtcaca ggcgtcgccc ttgggaaggg
180
cagccggaga agctggccct gtgtgggcct gggcctgtag gggttcccag tggctttgcg
240
gagccagaga gctggatggc acctgggtcca gccaaagcaa gccccgaggg caggggctgg
300
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360
tgcagcatct gtgaggatca aatgcgtgca cctacgcaa gcatccgcac atagcaagtg
420
ctcacctagc acaggagccc cgtgctcctc ccaagtctca g
461

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&lt;210&gt; 2824

&lt;211&gt; 81

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2824

```

Met Cys Val Ser Pro Ser Ser Pro Cys Pro Arg Gly Phe Ala Trp Leu
1          5          10          15
Asp Gln Val Pro Ser Ser Ser Leu Ala Pro Gln Ser His Trp Glu Thr
          20          25          30
Leu Gln Ala Gln Ala His Thr Gly Pro Ala Ser Pro Ala Ala Leu Pro
          35          40          45
Lys Gly Asp Ala Cys Asp Cys Val Cys Leu Pro Thr Gly Val Thr Thr
          50          55          60
His Pro Arg Pro Pro Glu Pro Gln His Glu Gly Ser Ala Pro Phe Pro
65          70          75          80
His

```

&lt;210&gt; 2825

&lt;211&gt; 1520

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2825

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60  
ggtgcagatc aagagcacia aacagatgag atgcacactg ccttaatgga ggcttgcag  
120  
gatggacatg tagaggtggc acgtttgctt ttggatagtg gtgctcaagt gaacatgcct  
180  
gcagattcat ttgaatctcc attgacgcta gctgcctgtg gaggacatgt tgaattggca  
240  
gctctactta ttgaaagggg agcaaatctt gaagaagtta atgatgaagg atacactccc  
300  
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360  
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420  
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480  
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540  
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660  
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720  
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gaccatactg tactgtccct ggcttgtgca ggggggtcatc tggcagtggg ggaactactt  
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960  
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1020  
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1080  
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1200  
tccagcagcc atttgccagc aaacagccag gatgtacagg gttacatcac caatcagtct  
1260  
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1320  
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1380  
accaaggaga agatcgagga gctcaacaaa acaaggaggg aacaaattca gaagaacaa  
1440

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1500

ctaaaaaagc agtatctaga

1520

<210> 2826

<211> 506

<212> PRT

<213> Homo sapiens

<400> 2826

Cys	Leu	Thr	Leu	Ala	Cys	Tyr	Lys	Gly	His	Leu	Asp	Met	Val	Arg	Phe
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Leu	Leu	Glu	Ala	Gly	Ala	Asp	Gln	Glu	His	Lys	Thr	Asp	Glu	Met	His
			20					25					30		
Thr	Ala	Leu	Met	Glu	Ala	Cys	Met	Asp	Gly	His	Val	Glu	Val	Ala	Arg
		35					40					45			
Leu	Leu	Leu	Asp	Ser	Gly	Ala	Gln	Val	Asn	Met	Pro	Ala	Asp	Ser	Phe
	50					55				60					
Glu	Ser	Pro	Leu	Thr	Leu	Ala	Ala	Cys	Gly	Gly	His	Val	Glu	Leu	Ala
65					70					75					80
Ala	Leu	Leu	Ile	Glu	Arg	Gly	Ala	Asn	Leu	Glu	Glu	Val	Asn	Asp	Glu
			85					90						95	
Gly	Tyr	Thr	Pro	Leu	Met	Glu	Ala	Ala	Arg	Glu	Gly	His	Glu	Glu	Met
			100					105					110		
Val	Ala	Leu	Leu	Leu	Ser	Thr	Arg	Ser	Xaa	Ile	Ser	Met	His	Arg	Gln
		115					120					125			
Lys	Lys	Leu	Lys	Lys	Leu	Leu	Leu	Thr	Leu	Ala	Cys	Cys	Gly	Gly	Phe
	130				135						140				
Leu	Glu	Val	Ala	Asp	Phe	Leu	Ile	Lys	Ala	Gly	Ala	Asp	Ile	Glu	Leu
145					150					155					160
Gly	Cys	Ser	Thr	Pro	Leu	Met	Glu	Ala	Ala	Gln	Glu	Gly	His	Leu	Glu
			165					170						175	
Leu	Val	Lys	Tyr	Leu	Leu	Ala	Ala	Gly	Ala	Asn	Val	His	Ala	Thr	Thr
			180					185					190		
Ala	Thr	Gly	Asp	Thr	Ala	Leu	Thr	Tyr	Ala	Cys	Glu	Asn	Gly	His	Thr
		195					200					205			
Asp	Val	Ala	Asp	Val	Leu	Leu	Gln	Ala	Gly	Ala	Asp	Leu	Asp	Lys	Gln
	210				215						220				
Glu	Asp	Met	Lys	Thr	Ile	Leu	Glu	Gly	Ile	Asp	Pro	Ala	Lys	His	Leu
225					230					235					240
Glu	His	Glu	Ser	Glu	Gly	Gly	Arg	Thr	Pro	Leu	Met	Lys	Ala	Ala	Arg
			245						250					255	
Ala	Gly	His	Val	Cys	Thr	Val	Gln	Phe	Leu	Ile	Ser	Lys	Gly	Ala	Asn
		260						265					270		
Val	Asn	Arg	Thr	Thr	Ala	Asn	Asn	Asp	His	Thr	Val	Leu	Ser	Leu	Ala
		275					280					285			
Cys	Ala	Gly	Gly	His	Leu	Ala	Val	Val	Glu	Leu	Leu	Leu	Ala	His	Gly
	290					295					300				
Ala	Asp	Pro	Thr	His	Arg	Leu	Lys	Asp	Gly	Ser	Thr	Met	Leu	Ile	Glu
305					310					315					320
Ala	Ala	Lys	Gly	Gly	His	Thr	Ser	Val	Val	Cys	Tyr	Leu	Leu	Asp	Tyr
			325						330					335	
Pro	Asn	Asn	Leu	Leu	Ser	Ala	Pro	Pro	Pro	Asp	Val	Thr	Gln	Leu	Thr

```

          340          345          350
Pro Pro Ser His Asp Leu Asn Arg Ala Pro Arg Val Pro Val Gln Ala
          355          360          365
Leu Pro Met Val Val Pro Pro Gln Glu Pro Asp Lys Pro Pro Ala Asn
          370          375          380
Val Ala Thr Thr Leu Pro Ile Arg Asn Lys Ala Ala Ser Lys Gln Lys
385          390          395          400
Ser Ser Ser His Leu Pro Ala Asn Ser Gln Asp Val Gln Gly Tyr Ile
          405          410          415
Thr Asn Gln Ser Pro Glu Ser Ile Val Glu Glu Ala Gln Gly Lys Leu
          420          425          430
Thr Glu Leu Glu Gln Arg Ile Lys Glu Ala Ile Glu Lys Asn Ala Gln
          435          440          445
Leu Gln Ser Leu Glu Leu Ala His Ala Asp Gln Leu Thr Lys Glu Lys
          450          455          460
Ile Glu Glu Leu Asn Lys Thr Arg Glu Glu Gln Ile Gln Lys Lys Gln
465          470          475          480
Lys Ile Leu Glu Glu Leu Gln Lys Val Glu Arg Glu Leu Gln Leu Lys
          485          490          495
Thr Gln Gln Gln Leu Lys Lys Gln Tyr Leu
          500          505

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&lt;210&gt; 2827

&lt;211&gt; 481

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2827

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120
ctgctgcacc tgtgtgtcca gcagcctctt cagctgctgc aggtggaatt cttgcgtctg
180
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240
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300
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360
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420
ctgggtgcgc tcttgctgtc tcacaactgc ctctctgagc tgcctgaggc tctgggggcc
480
c
481

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&lt;210&gt; 2828

&lt;211&gt; 160

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2828

```

Arg Glu Ala Ala Ala Ala Ala Gly Asp Ala Ser Glu Asp Ser Asp Ala

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1	5	10	15
Gly Ser Arg Ala Leu Pro Phe Leu Gly Gly Asn Arg Leu Ser Leu Asp			
	20	25	30
Leu Tyr Pro Gly Gly Cys Gln Gln Leu Leu His Leu Cys Val Gln Gln			
	35	40	45
Pro Leu Gln Leu Leu Gln Val Glu Phe Leu Arg Leu Asn Thr His Glu			
	50	55	60
Asp Pro Gln Leu Leu Glu Ala Thr Leu Ala Gln Leu Pro Gln Asn Leu			
65	70	75	80
Ser Cys Leu Arg Ser Leu Val Leu Lys Arg Gly Gln Arg Arg Asp Thr			
	85	90	95
Leu Gly Ala Cys Leu Arg Gly Ala Leu Thr Asn Leu Pro Ala Gly Leu			
	100	105	110
Ser Gly Leu Ala His Leu Ala His Leu Asp Leu Ser Phe Asn Ser Leu			
	115	120	125
Glu Thr Leu Pro Ala Cys Val Leu Gln Met Arg Gly Leu Gly Ala Leu			
	130	135	140
Leu Leu Ser His Asn Cys Leu Ser Glu Leu Pro Glu Ala Leu Gly Ala			
145	150	155	160

&lt;210&gt; 2829

&lt;211&gt; 3648

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2829

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60
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180
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240
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360
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480
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540
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600
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900

```

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960  
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ccttcgccc cctctgatct cgacttctcg caacctatcc aggtcctctc tgggcctctg  
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 3600  
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 3648

&lt;210&gt; 2830

&lt;211&gt; 668

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2830

Met	Val	Met	Glu	Phe	Pro	Asp	Asn	Val	Leu	Asn	Leu	Asp	Gly	His	Gln
1				5					10					15	
Asn	Asn	Gly	Ala	Gln	Leu	Lys	Gln	Phe	Ile	Gln	Arg	His	Gly	Met	Leu
		20						25					30		
Lys	Gln	Gln	Asp	Leu	Ser	Ile	Ala	Met	Val	Val	Thr	Ser	Arg	Glu	Val
		35					40				45				
Leu	Ser	Ala	Leu	Ser	Gln	Leu	Val	Pro	Cys	Val	Gly	Cys	Arg	Arg	Ser
	50					55					60				
Val	Glu	Arg	Leu	Phe	Ser	Gln	Leu	Val	Glu	Ser	Gly	Asn	Pro	Ala	Leu

65					70					75				80	
Glu	Pro	Leu	Thr	Val	Gly	Pro	Lys	Gly	Val	Leu	Ser	Val	Thr	Arg	Ser
				85					90					95	
Cys	Met	Thr	Asp	Ala	Lys	Lys	Leu	Tyr	Thr	Leu	Phe	Tyr	Val	His	Gly
			100					105					110		
Ser	Lys	Leu	Asn	Asp	Met	Ile	Asp	Ala	Ile	Pro	Lys	Ser	Lys	Lys	Asn
		115					120					125			
Lys	Arg	Cys	Gln	Leu	His	Ser	Leu	Asp	Thr	His	Lys	Pro	Lys	Pro	Leu
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Gly	Gly	Cys	Trp	Met	Asp	Val	Trp	Glu	Leu	Met	Ser	Gln	Glu	Cys	Arg
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Asp	Glu	Val	Val	Leu	Ile	Asp	Ser	Ser	Cys	Leu	Leu	Glu	Thr	Leu	Glu
			165						170					175	
Thr	Tyr	Leu	Arg	Lys	His	Arg	Phe	Cys	Thr	Asp	Cys	Lys	Asn	Lys	Val
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Leu	Arg	Ala	Tyr	Asn	Ile	Leu	Ile	Gly	Glu	Leu	Asp	Cys	Ser	Lys	Glu
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Lys	Gly	Tyr	Cys	Ala	Ala	Leu	Tyr	Glu	Gly	Leu	Arg	Cys	Cys	Pro	His
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Glu	Arg	His	Ile	His	Val	Cys	Cys	Glu	Thr	Asp	Phe	Ile	Ala	His	Leu
225					230					235					240
Leu	Gly	Arg	Ala	Glu	Pro	Glu	Phe	Ala	Gly	Gly	Tyr	Glu	Arg	Arg	Glu
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Arg	His	Ala	Lys	Thr	Ile	Asp	Ile	Ala	Gln	Glu	Glu	Val	Leu	Thr	Cys
			260					265					270		
Leu	Gly	Ile	His	Leu	Tyr	Glu	Arg	Leu	His	Arg	Ile	Trp	Gln	Lys	Leu
	275						280					285			
Arg	Ala	Glu	Glu	Gln	Thr	Trp	Gln	Met	Leu	Phe	Tyr	Leu	Gly	Val	Asp
	290					295					300				
Ala	Leu	Arg	Lys	Ser	Phe	Glu	Met	Thr	Val	Glu	Lys	Val	Gln	Gly	Ile
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Ser	Arg	Leu	Glu	Gln	Leu	Cys	Glu	Glu	Phe	Ser	Glu	Glu	Glu	Arg	Val
			325						330					335	
Arg	Glu	Leu	Lys	Gln	Glu	Lys	Lys	Arg	Gln	Lys	Arg	Lys	Asn	Arg	Arg
		340						345					350		
Lys	Asn	Lys	Cys	Val	Cys	Asp	Ile	Pro	Thr	Pro	Leu	Gln	Thr	Ala	Asp
	355						360					365			
Glu	Lys	Glu	Val	Ser	Gln	Glu	Lys	Glu	Thr	Asp	Phe	Ile	Glu	Asn	Ser
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Ser	Cys	Lys	Ala	Cys	Gly	Ser	Thr	Glu	Asp	Gly	Asn	Thr	Cys	Val	Glu
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Val	Ile	Val	Thr	Asn	Glu	Asn	Thr	Ser	Cys	Thr	Cys	Pro	Ser	Ser	Gly
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His	Asp	Glu	His	Gly	Asp	Ser	Cys	Val	His	His	Cys	Glu	Asp	Lys	
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Glu	Asp	Asp	Gly	Asp	Ser	Cys	Val	Glu	Cys	Trp	Ala	Asn	Ser	Glu	Glu
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Asn	Asp	Thr	Lys	Gly	Lys	Asn	Lys	Lys	Lys	Lys	Lys	Lys	Ser	Lys	Ile

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 Leu Lys Cys Asp Glu His Ile Gln Lys Leu Gly Ser Cys Ile Thr Asp  
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 Pro Gly Asn Arg Glu Thr Ser Gly Asn Thr Met His Thr Val Phe His  
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 Arg Asp Lys Thr Lys Asp Thr His Pro Glu Ser Cys Cys Ser Ser Glu  
 545 550 555 560  
 Lys Gly Gly Gln Pro Leu Pro Trp Phe Glu His Arg Lys Asn Val Pro  
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 Gln Phe Ala Glu Pro Thr Glu Thr Leu Phe Gly Pro Asp Ser Gly Lys  
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 Gly Ala Lys Ser Leu Val Glu Leu Leu Asp Glu Ser Glu Cys Thr Ser  
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 Asp Glu Glu Ile Phe Ile Ser Gln Asp Glu Ile Gln Ser Phe Met Ala  
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<210> 2832  
 <211> 611  
 <212> PRT  
 <213> Homo sapiens

<400> 2832

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      20           25           30
Gly Thr Arg Thr Ser Ser Gly Arg Leu Arg Arg Leu Gly Asp Ser Ser
      35           40           45
Gly Pro Ala Leu Lys Arg Ser Phe Glu Val Glu Glu Val Glu Thr Pro
      50           55           60
Asn Ser Thr Pro Pro Arg Arg Val Gln Thr Pro Leu Leu Arg Ala Thr
      65           70           75           80
Val Ala Ser Ser Thr Gln Lys Phe Gln Asp Leu Gly Val Lys Asn Ser
      85           90           95
Glu Pro Ser Ala Arg His Val Asp Ser Leu Ser Gln Arg Ser Pro Lys
      100          105          110
Ala Ser Leu Arg Arg Val Glu Leu Ser Gly Pro Lys Ala Ala Glu Pro
      115          120          125
Val Ser Arg Arg Thr Glu Leu Ser Ile Asp Ile Ser Ser Lys Gln Val
      130          135          140
Glu Asn Ala Gly Ala Ile Gly Pro Ser Arg Phe Gly Leu Lys Arg Ala
      145          150          155          160
Glu Val Leu Gly His Lys Thr Pro Glu Pro Ala Pro Arg Arg Thr Glu
      165          170          175
Ile Thr Ile Val Lys Pro Gln Glu Ser Ala His Arg Arg Met Glu Pro
      180          185          190
Pro Ala Ser Lys Val Pro Glu Val Pro Thr Ala Pro Ala Thr Asp Ala
      195          200          205
Ala Pro Lys Arg Val Glu Ile Gln Met Pro Lys Pro Ala Glu Ala Pro
      210          215          220
Thr Ala Pro Ser Pro Ala Gln Thr Leu Glu Asn Ser Glu Pro Ala Pro
      225          230          235          240
Val Ser Gln Leu Gln Ser Arg Leu Glu Pro Lys Pro Gln Pro Pro Val
      245          250          255
Ala Glu Ala Thr Pro Arg Ser Gln Glu Ala Thr Glu Ala Ala Pro Ser
      260          265          270
Cys Val Gly Asp Met Ala Asp Thr Pro Arg Asp Ala Gly Leu Lys Gln
      275          280          285
Ala Pro Ala Ser Arg Asn Glu Lys Ala Pro Val Asp Phe Gly Tyr Val
      290          295          300
Gly Ile Asp Ser Ile Leu Glu Gln Met Arg Arg Lys Ala Met Lys Gln
      305          310          315          320
Gly Phe Glu Phe Asn Ile Met Val Val Gly Gln Ser Gly Leu Gly Lys
      325          330          335
Ser Thr Leu Ile Asn Thr Leu Phe Lys Ser Lys Ile Ser Arg Lys Ser
      340          345          350
Val Gln Pro Thr Ser Glu Glu Arg Ile Pro Lys Thr Ile Glu Ile Lys
      355          360          365
Ser Ile Thr His Asp Ile Glu Glu Lys Gly Val Arg Met Lys Leu Thr

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      370      375      380
Val Ile Asp Thr Pro Gly Phe Gly Asp His Ile Asn Asn Glu Asn Cys
385      390      395      400
Trp Gln Pro Ile Met Lys Phe Ile Asn Asp Gln Tyr Glu Lys Tyr Leu
      405      410      415
Gln Glu Glu Val Asn Ile Asn Arg Lys Lys Arg Ile Pro Asp Thr Arg
      420      425      430
Val His Cys Cys Leu Tyr Phe Ile Pro Ala Thr Gly His Ser Leu Arg
      435      440      445
Pro Leu Asp Ile Glu Phe Met Lys Arg Leu Ser Lys Val Val Asn Ile
      450      455      460
Val Pro Val Ile Ala Lys Ala Asp Thr Leu Thr Leu Glu Glu Arg Val
465      470      475      480
His Phe Lys Gln Arg Ile Thr Ala Asp Leu Leu Ser Asn Gly Ile Asp
      485      490      495
Val Tyr Pro Gln Lys Glu Phe Asp Glu Asp Ser Glu Asp Arg Leu Val
      500      505      510
Asn Glu Lys Phe Arg Glu Met Ile Pro Phe Ala Val Val Gly Ser Asp
      515      520      525
His Glu Tyr Gln Val Asn Gly Lys Arg Ile Leu Gly Arg Lys Thr Lys
      530      535      540
Trp Gly Thr Ile Glu Val Glu Asn Thr Thr His Cys Glu Phe Ala Tyr
545      550      555      560
Leu Arg Asp Leu Leu Ile Arg Thr His Met Gln Asn Ile Lys Asp Ile
      565      570      575
Thr Ser Ser Ile His Phe Glu Ala Tyr Arg Val Lys Arg Leu Asn Glu
      580      585      590
Gly Ser Ser Ala Met Ala Asn Gly Val Glu Glu Lys Glu Pro Glu Ala
      595      600      605
Pro Glu Met
610

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&lt;210&gt; 2833

&lt;211&gt; 420

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2833

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240
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300
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420

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&lt;210&gt; 2834

<211> 117  
 <212> PRT  
 <213> Homo sapiens

<400> 2834

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Leu Leu Arg Leu Leu Arg Ser Pro Thr Leu Arg Gly His Gly Gly Ala
      20           25          30
Ser Gly Arg Asn Val Thr Thr Gly Ser Leu Gly Glu Pro Gln Trp Leu
      35           40          45
Arg Val Ala Thr Gly Gly Arg Pro Gly Thr Ser Pro Ala Leu Phe Ser
      50           55          60
Gly Arg Gly Ala Ala Thr Gly Gly Arg Gln Gly Gly Arg Phe Asp Thr
      65           70          75          80
Lys Cys Leu Ala Ala Ala Thr Trp Gly Arg Leu Pro Gly Pro Glu Glu
      85           90          95
Thr Leu Pro Gly Gln Asp Ser Trp Asn Gly Val Pro Ser Arg Ala Gly
      100          105          110
Leu Gly Met Cys Ala
      115

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<210> 2835  
 <211> 938  
 <212> DNA  
 <213> Homo sapiens

<400> 2835

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780

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<210> 2836  
 <211> 178  
 <212> PRT  
 <213> Homo sapiens

<400> 2836  
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 35 40 45  
 Thr Leu Ser Val Arg Gly Glu Asp Ile Gly Glu Asp Leu Phe Ser Glu  
 50 55 60  
 Ala Leu Gly Arg Ala Val Gly Gln Trp Ala Gly Ala Lys Leu Leu Asp  
 65 70 75 80  
 His Gly Cys Val Glu Ser Ser Ile Leu Asp Ser Ser Ala Gly Ser Ala  
 85 90 95  
 Pro His Tyr Glu Val Phe Val Ala Leu Arg Gly Leu Arg Asn Leu Ser  
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 Glu Glu Asn Arg Asp Lys Leu Asp His Cys Leu Gln Glu Ala Ser Pro  
 115 120 125  
 Arg Tyr Lys Ser Leu Arg Phe Trp Gly Ser Val Gly Pro Ala Glu Ser  
 130 135 140  
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 Leu Gly

<210> 2837  
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 <212> DNA  
 <213> Homo sapiens

<400> 2837  
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&lt;210&gt; 2838

&lt;211&gt; 370

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2838

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			20					25					30		
Ser	Glu	Glu	Glu	Glu	Ala	Asn	Tyr	Trp	Lys	Asp	Leu	Ala	Met	Thr	Tyr
		35					40					45			
Lys	Gln	Arg	Ala	Glu	Asn	Thr	Gln	Glu	Glu	Leu	Arg	Glu	Phe	Gln	Glu
	50					55					60				
Gly	Ser	Arg	Glu	Tyr	Glu	Ala	Glu	Leu	Glu	Thr	Gln	Leu	Gln	Gln	Ile
65					70				75					80	
Glu	Thr	Arg	Asn	Arg	Asp	Leu	Leu	Ser	Glu	Asn	Asn	Arg	Leu	Arg	Met
			85					90					95		
Glu	Leu	Glu	Thr	Ile	Lys	Glu	Lys	Phe	Glu	Val	Gln	His	Ser	Glu	Gly
			100				105						110		
Tyr	Arg	Gln	Ile	Ser	Ala	Leu	Glu	Asp	Asp	Leu	Ala	Gln	Thr	Lys	Ala

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      115              120              125
Ile Lys Asp Gln Leu Gln Lys Tyr Ile Arg Glu Leu Glu Gln Ala Asn
  130              135              140
Asp Ala Leu Glu Arg Ala Lys Arg Ala Thr Ile Met Ser Leu Glu Asp
  145              150              155              160
Phe Glu Gln Arg Leu Asn Gln Ala Ile Glu Arg Asn Ala Phe Leu Glu
      165              170              175
Ser Glu Leu Asp Glu Lys Glu Asn Leu Leu Glu Ser Val Gln Arg Leu
      180              185              190
Lys Asp Glu Ala Arg Asp Leu Arg Gln Glu Leu Ala Val Gln Gln Lys
      195              200              205
Gln Glu Lys Pro Arg Thr Pro Met Pro Ser Ser Val Glu Ala Glu Arg
      210              215              220
Thr Asp Thr Ala Val Gln Ala Thr Gly Ser Val Pro Ser Thr Pro Ile
  225              230              235              240
Ala His Arg Gly Pro Ser Ser Ser Leu Asn Thr Pro Gly Ser Phe Arg
      245              250              255
Arg Gly Leu Asp Asp Xaa His Arg Gly Thr Pro Leu Thr Pro Ala Ala
      260              265              270
Arg Ile Ser Ala Leu Asn Ile Val Gly Asp Leu Leu Arg Lys Val Gly
      275              280              285
Ala Leu Glu Ser Lys Leu Ala Ser Cys Arg Asn Leu Val Tyr Asp Gln
      290              295              300
Ser Pro Asn Arg Thr Gly Gly Pro Ala Ser Gly Arg Ser Ser Lys Asn
  305              310              315              320
Arg Asp Gly Gly Glu Arg Arg Pro Ser Ser Thr Ser Val Pro Leu Gly
      325              330              335
Asp Lys Gly Ser Val Pro Ser Asn Lys Pro Leu Ala Gly Gly Glu Asn
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Pro Pro Ala Pro Gly Lys Arg His Ser Pro Pro Ala His Ser His Val
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Ser Phe
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<210> 2839  
 <211> 606  
 <212> DNA  
 <213> Homo sapiens

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 aagctccaac tctacggtcc caccaacatt gccccatca tccagaaggt tgccaagtca  
 420

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 480  
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 600  
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 606

<210> 2840  
 <211> 202  
 <212> PRT  
 <213> Homo sapiens

<400> 2840  
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 Ala Thr Asn Gly Asp Pro Arg Asn Ser Cys Ser Leu His Tyr Ile His  
 35 40 45  
 Pro Tyr Gln Pro Asn Glu Tyr Leu Lys Ala Leu Val Ala Val Gly Glu  
 50 55 60  
 Ile Cys Gln Asp Tyr Asp Ser Asp Lys Met Phe Pro Ala Phe Gly Phe  
 65 70 75 80  
 Gly Ala Arg Ile Pro Pro Glu Tyr Thr Val Ser His Asp Phe Ala Ile  
 85 90 95  
 Asn Phe Asn Glu Asp Asn Pro Glu Cys Ala Gly Ile Gln Gly Val Val  
 100 105 110  
 Glu Ala Tyr Gln Ser Cys Leu Pro Lys Leu Gln Leu Tyr Gly Pro Thr  
 115 120 125  
 Asn Ile Ala Pro Ile Ile Gln Lys Val Ala Lys Ser Ala Ser Glu Glu  
 130 135 140  
 Thr Asn Thr Lys Glu Ala Ser Gln Tyr Phe Ile Leu Leu Ile Leu Thr  
 145 150 155 160  
 Asp Gly Val Ile Thr Asp Met Gly Asp Thr Arg Glu Ala Ile Val His  
 165 170 175  
 Ala Ser His Leu Pro Met Ser Val Ile Ile Val Gly Val Gly Asn Ala  
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 195 200

<210> 2841  
 <211> 2065  
 <212> DNA  
 <213> Homo sapiens

<400> 2841  
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<210> 2842

<211> 540

<212> PRT

<213> Homo sapiens

<400> 2842

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Pro	Pro	Val	Gly	Thr	Gly	Arg	Ser	Pro	Arg	Lys	Arg	Thr	Thr	Ser	Gln
		35				40					45				
Cys	Lys	Ser	Glu	Pro	Pro	Leu	Leu	Arg	Thr	Ser	Lys	Arg	Thr	Ile	Tyr
	50					55				60					
Thr	Ala	Gly	Arg	Pro	Pro	Trp	Tyr	Asn	Glu	His	Gly	Thr	Gln	Ser	Lys
65				70					75					80	
Glu	Ala	Phe	Ala	Ile	Gly	Leu	Gly	Gly	Gly	Ser	Ala	Ser	Gly	Lys	Thr
			85					90					95		
Thr	Val	Ala	Arg	Met	Ile	Ile	Glu	Ala	Leu	Asp	Val	Pro	Trp	Val	Val
		100						105				110			
Leu	Leu	Ser	Met	Asp	Ser	Phe	Tyr	Lys	Val	Leu	His	Ser	Leu	Pro	His
		115					120					125			
Gln	Val	Leu	Thr	Glu	Gln	Gln	Glu	Gln	Ala	Ala	His	Asn	Asn	Phe	
	130				135					140					
Asn	Phe	Asp	His	Pro	Asp	Ala	Phe	Asp	Phe	Asp	Leu	Ile	Ile	Ser	Thr
145				150					155					160	
Leu	Lys	Lys	Leu	Lys	Gln	Gly	Lys	Ser	Val	Lys	Val	Pro	Ile	Tyr	Asp
		165						170					175		
Phe	Thr	Thr	His	Ser	Arg	Lys	Lys	Asp	Trp	Lys	Thr	Leu	Tyr	Gly	Ala
		180						185				190			
Asn	Val	Ile	Ile	Phe	Glu	Gly	Ile	Met	Ala	Phe	Ala	Asp	Lys	Thr	Leu
	195					200					205				
Leu	Glu	Leu	Leu	Asp	Met	Lys	Ile	Phe	Val	Asp	Thr	Asp	Ser	Asp	Ile
	210				215					220					
Arg	Leu	Val	Arg	Arg	Leu	Arg	Arg	Asp	Ile	Ser	Glu	Arg	Gly	Arg	Asp
225				230					235					240	
Ile	Glu	Gly	Val	Ile	Lys	Gln	Tyr	Asn	Lys	Phe	Val	Lys	Pro	Ser	Phe
		245						250					255		
Asp	Gln	Tyr	Ile	Gln	Pro	Thr	Met	Arg	Leu	Ala	Asp	Ile	Val	Val	Pro
	260						265					270			
Arg	Gly	Ser	Gly	Asn	Thr	Val	Ala	Ile	Asp	Leu	Ile	Val	Gln	His	Val
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His	Ser	Gln	Leu	Glu	Glu	Arg	Glu	Leu	Ser	Val	Arg	Ala	Ala	Leu	Ala



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Ser Ala His Gln Cys His Pro Leu Pro Arg Thr Leu Ser Val Leu Lys
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      325      330      335
Thr Ser Arg Asp Glu Phe Ile Phe Tyr Ser Lys Arg Leu Met Arg Leu
      340      345      350
Leu Ile Glu His Ala Leu Ser Phe Leu Pro Phe Gln Asp Cys Val Val
      355      360      365
Gln Thr Pro Gln Gly Gln Asp Tyr Ala Gly Lys Cys Tyr Ala Gly Lys
      370      375      380
Gln Ile Thr Gly Val Ser Ile Leu Arg Ala Gly Glu Thr Met Glu Pro
385      390      395      400
Ala Leu Arg Ala Val Cys Lys Asp Val Arg Ile Gly Thr Ile Leu Ile
      405      410      415
Gln Thr Asn Gln Leu Thr Gly Glu Pro Glu Leu His Tyr Leu Arg Leu
      420      425      430
Pro Lys Asp Ile Ser Asp Asp His Val Ile Leu Met Asp Cys Thr Val
      435      440      445
Ser Thr Gly Ala Ala Ala Met Met Ala Val Arg Val Leu Leu Asp His
      450      455      460
Asp Val Pro Glu Asp Lys Ile Phe Leu Leu Ser Leu Leu Met Ala Glu
465      470      475      480
Met Gly Val His Ser Val Ala Tyr Ala Phe Pro Arg Val Arg Ile Ile
      485      490      495
Thr Thr Ala Val Asp Lys Arg Val Asn Asp Leu Phe Arg Ile Ile Pro
      500      505      510
Gly Ile Gly Asn Phe Gly Asp Arg Tyr Phe Gly Thr Asp Ala Val Pro
      515      520      525
Asp Gly Ser Asp Glu Glu Glu Val Ala Tyr Thr Gly
      530      535      540

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&lt;210&gt; 2843

&lt;211&gt; 497

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2843

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<210> 2844  
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<212> PRT  
<213> Homo sapiens

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35 40 45  
Ser Ser Lys Phe Gln Glu Gly Ala Glu Met Leu Leu Asn Pro Glu Glu  
50 55 60  
Lys Ser Pro Leu Asn Ile Ser Val Gly Val His Pro Leu Asp Ser Phe  
65 70 75 80  
Thr Gln Gly Phe Gly Glu Gln Pro Thr Gly Asp Leu Pro Ile Gly Pro  
85 90 95  
Pro Phe Glu Met Pro Thr Gly Ala Leu Leu Ser Thr Pro Gln Phe Glu  
100 105 110  
Met Leu Gln Asn Pro Leu Gly Leu Thr Gly Ala Leu Arg Gly Pro Gly  
115 120 125  
Arg Arg Gly Gly Arg Ala Arg Gly Gly Gln Gly Pro Arg Pro Asn Ile  
130 135 140  
Cys Gly Ile Trp Gly Lys Ser Phe Gly Arg Asp Tyr Pro Asp Pro Ala  
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Gln Ala Ser Thr Pro  
165

<210> 2845  
<211> 934  
<212> DNA  
<213> Homo sapiens

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480

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&lt;210&gt; 2846

&lt;211&gt; 149

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2846

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Leu	Pro	Cys	Pro	Leu	Gly	Ser	Gly	Arg	Leu	Trp	Leu	Met	Pro	Thr	Arg
			20					25					30		
Cys	His	Lys	Gly	Leu	Ser	Asp	Arg	Cys	Ser	Pro	Ser	Leu	Pro	Cys	Leu
		35					40					45			
Pro	His	Arg	Pro	Ser	Pro	Pro	Glu	Pro	Ala	Phe	Leu	Pro	Gln	His	Leu
	50				55					60					
Pro	Ser	Leu	Ala	Thr	Gly	Tyr	Ile	Cys	Val	Asp	Cys	Leu	Ser	Leu	His
65				70					75					80	
Gly	Asn	Val	Arg	Thr	Ile	Phe	Val	Cys	Cys	Gly	Thr	Ala	Ala	Leu	Arg
			85					90						95	
Ala	Ala	Ser	Ser	Thr	Gln	Val	Ala	Leu	Asp	Thr	Asp	Cys	Thr	Gln	Gly
			100				105						110		
Glu	Leu	Gly	Leu	Ile	Thr	Pro	Leu	Thr	Arg	Gly	Glu	Thr	Leu	Gln	Leu
		115					120					125			
Glu	Val	Thr	Phe	Ile	Pro	Leu	Gln	Leu	Arg	Pro	Phe	His	Ser	Pro	Arg
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Thr	His	Arg	Gly	Ala											
145															

&lt;210&gt; 2847

&lt;211&gt; 2830

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2847

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&lt;210&gt; 2848

&lt;211&gt; 856

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2848

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Ser Gln Lys Ser Ser Glu Asp Ser Gly Ser Arg Lys Asp Ser Ser Ser
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          115          120          125
Leu Val Thr Asp Lys Gly Lys Arg Val Gly Gly Ser Ile Arg Pro Trp
          130          135          140
Lys Gln Met Tyr Val Val Leu Arg Gly His Ser Leu Tyr Leu Tyr Lys
145          150          155          160
Asp Lys Arg Glu Gln Thr Thr Pro Ser Glu Glu Glu Gln Pro Ile Ser
          165          170          175
Val Asn Ala Cys Leu Ile Asp Ile Ser Tyr Ser Glu Thr Lys Arg Lys
          180          185          190
Asn Val Phe Arg Leu Thr Thr Ser Asp Cys Glu Cys Leu Phe Gln Ala
          195          200          205
Glu Asp Arg Asp Asp Met Leu Ala Trp Ile Lys Thr Ile Gln Glu Ser
          210          215          220
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225          230          235          240
Ser Arg Arg Ile Lys Glu Tyr Asn Asn Leu Met Ser Lys Ala Glu Gln
          245          250          255
Leu Pro Lys Thr Pro Arg Gln Ser Leu Ser Ile Arg Gln Thr Leu Leu
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Gly Ala Lys Ser Glu Pro Lys Thr Gln Ser Pro His Ser Pro Lys Glu
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Asp Lys Gly Thr Trp Arg Lys Gly Ile Pro Ser Ile Met Arg Lys Thr
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Ile His Asp Leu Pro Glu His His Tyr Glu Thr Leu Lys Phe Leu Ser
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Ala His Leu Lys Thr Val Ala Glu Asn Ser Glu Lys Asn Lys Met Glu
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Glu Asp Asn Met Thr His Met Val Thr His Met Pro Asp Gln Tyr Lys

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Lys	Ser	Ser	Arg	Arg	Asn	Ser	Glu								
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&lt;210&gt; 2849

&lt;211&gt; 380

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2849

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<212> PRT

<213> Homo sapiens

<400> 2850

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			20					25					30		
Glu	Glu	Asp	Lys	Lys	Asp	Gly	Lys	Glu	Pro	Ser	Asp	Lys	Pro	Gln	Lys
		35				40						45			
Ala	Val	Gln	Asp	His	Lys	Glu	Pro	Ser	Asp	Lys	Pro	Gln	Lys	Ala	Val
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<211> 2459

<212> DNA

<213> Homo sapiens

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<210> 2852

<211> 317

<212> PRT

<213> Homo sapiens

<400> 2852

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			20					25					30		
Leu	Tyr	Met	Leu	Val	Lys	Met	Ser	His	His	Val	Trp	Thr	Ala	Gln	Asn
		35					40					45			
Val	Asp	Pro	Ala	Ser	Phe	Leu	Ser	Thr	Thr	Leu	Gly	Asn	Val	Leu	Val
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Thr	Val	Lys	Arg	Asn	Phe	Asp	Lys	Cys	Ile	Ser	Asn	Gln	Ile	Arg	Gln
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Met	Glu	Glu	Val	Lys	Ile	Ser	Lys	Lys	Ser	Lys	Val	Gly	Ile	Leu	Pro
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Phe	Val	Ala	Glu	Phe	Glu	Glu	Phe	Ala	Gly	Leu	Ala	Glu	Ser	Ile	Phe
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Lys	Asn	Ala	Glu	Arg	Arg	Gly	Asp	Leu	Asp	Lys	Ala	Tyr	Thr	Lys	Leu
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Lys	Thr	Pro	Arg	Asp	Val	Met	Met	Glu	Asn	Phe	His	His	Ile	Phe	
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Lys	His	Leu	Cys	Glu	Glu	Glu	Asn	Leu	Leu	Gln	Val	Val	Trp	His	Ser
	260						265						270		
Met	Gln	Asp	Glu	Phe	Ile	Arg	Gln	Tyr	Lys	His	Phe	Glu	Gly	Leu	Ile
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305	310	315

&lt;210&gt; 2853

&lt;211&gt; 4993

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2853

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4560

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<210> 2854

<211> 1235

<212> PRT

<213> Homo sapiens

<400> 2854

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Glu	Ile	Gly	His	Gly	Ser	Phe	Gly	Ala	Val	Tyr	Phe	Ala	Arg	Asp	Val
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Arg	Asn	Ser	Glu	Val	Val	Ala	Ile	Lys	Lys	Met	Ser	Tyr	Ser	Gly	Lys
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Gln	Ser	Asn	Glu	Lys	Trp	Gln	Asp	Ile	Ile	Lys	Glu	Val	Arg	Phe	Leu
65				70					75					80	
Gln	Lys	Leu	Arg	His	Pro	Asn	Thr	Ile	Gln	Tyr	Arg	Gly	Cys	Tyr	Leu
			85					90				95			
Arg	Glu	His	Thr	Ala	Trp	Leu	Val	Met	Glu	Tyr	Cys	Leu	Gly	Ser	Ala
		100					105					110			
Ser	Asp	Leu	Leu	Glu	Val	His	Lys	Pro	Leu	Gln	Glu	Val	Glu	Ile	
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Ala	Ala	Val	Thr	His	Gly	Ala	Leu	Gln	Gly	Leu	Ala	Tyr	Leu	His	Ser
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His	Asn	Met	Ile	His	Arg	Asp	Val	Lys	Ala	Gly	Asn	Ile	Leu	Leu	Ser
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Val	Ile	Leu	Ala	Met	Asp	Glu	Gly	Gln	Tyr	Asp	Gly	Lys	Val	Asp	Val
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Trp	Ser	Leu	Gly	Ile	Thr	Cys	Ile	Glu	Leu	Ala	Glu	Arg	Lys	Pro	Pro
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Leu	Phe	Asn	Met	Asn	Ala	Met	Ser	Ala	Leu	Tyr	His	Ile	Ala	Gln	Asn
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Val Ile Met Asp Leu Ile Gln Arg Thr Lys Asp Ala Val Arg Glu Leu
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Asp Asn Leu Gln Tyr Arg Lys Met Lys Lys Ile Leu Phe Gln Glu Ala
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Pro Asn Gly Pro Gly Ala Glu Ala Pro Glu Glu Glu Glu Glu Ala Glu
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Pro Tyr Met His Arg Ala Gly Thr Leu Thr Ser Leu Glu Ser Ser His
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Ser Val Pro Ser Met Ser Ile Ser Ala Ser Ser Gln Ser Ser Ser Val
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Asn Ser Leu Ala Asp Ala Ser Asp Asn Glu Glu Glu Glu Glu Glu Glu
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385                390                395                400
Met Met Gln Glu Gly Glu His Thr Val Thr Ser His Ser Ser Ile Ile
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His Arg Leu Pro Gly Ser Asp Asn Leu Tyr Asp Asp Pro Tyr Gln Pro
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Glu Ile Thr Pro Ser Pro Leu Gln Pro Pro Ala Ala Pro Ala Pro Thr
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Arg Met Arg Arg Gln His Gln Lys Gln Leu Leu Ala Leu Glu Ser Arg
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610                615                620
Ala Glu Glu Glu Ala Gly Leu Leu Arg Arg Gln Arg Gln Tyr Phe Glu
625                630                635                640
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Leu Asp Gln Asp Leu Leu Arg Glu Asp Leu Asn Lys Lys Gln Thr Gln
660                665                670
Lys Asp Leu Glu Cys Ala Leu Leu Leu Arg Gln His Glu Ala Thr Arg

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Asn Lys Arg Arg Glu Gln	Glu Leu Arg Gln Lys His Ala Ala Gln Val	
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Arg Gln Gln Pro Lys Ser	Leu Lys Val Arg Ala Gly Gln Arg Pro Pro	
740	745	750
Gly Leu Pro Leu Pro Ile	Pro Gly Ala Leu Gly Pro Pro Asn Thr Gly	
755	760	765
Thr Pro Ile Glu Gln Gln	Pro Cys Ser Pro Gly Gln Glu Ala Val Leu	
770	775	780
Asp Gln Arg Met Leu Gly	Glu Glu Glu Ala Val Gly Glu Arg Arg	
785	790	795
Ile Leu Gly Lys Glu Gly	Ala Thr Leu Glu Pro Lys Gln Gln Arg Ile	
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Leu Gly Glu Glu Ser Gly	Ala Pro Ser Pro Ser Pro Gln Lys His Gly	
820	825	830
Ser Leu Val Asp Glu Glu	Val Trp Gly Leu Pro Glu Glu Ile Glu Glu	
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Glu Glu Ala Gly Thr Trp	Ser Leu Trp Gly Lys Glu Asp Glu Ser Leu	
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Pro Val Pro Glu Glu Glu	Glu Glu Glu Glu Gly Ala Pro Ile Gly	
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Thr Pro Arg Asp Pro Gly	Asp Gly Cys Pro Ser Pro Asp Ile Pro Pro	
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Glu Pro Pro Pro Thr His	Leu Arg Pro Cys Pro Ala Ser Gln Leu Pro	
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Gly Leu Leu Ser His Gly	Leu Leu Ala Gly Leu Ser Phe Ala Val Gly	
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Ser Ser Ser Gly Leu Leu	Pro Leu Leu Leu Leu Leu Pro Leu	
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Val Pro Leu Gly Leu Gly	Ala Ala Trp Leu Leu Ala Trp Pro Gly Leu	
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Ala Leu Pro Leu Val Ala	Met Ala Ala Gly Gly Arg Trp Val Arg Gln	
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Gln Gly Pro Arg Val Arg	Arg Gly Ile Ser Arg Leu Trp Leu Arg Val	
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Leu Leu Arg Leu Ser Pro	Met Ala Phe Arg Ala Leu Gln Gly Cys Gly	
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Ala Val Gly Asp Arg Gly	Leu Phe Ala Leu Tyr Pro Lys Thr Asn Lys	



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                                  1140                      1145                      1150  
 Leu Cys Lys Gly Trp Asn Trp Arg Leu Ala Arg Ala Ser Gln Gly Leu  
                                  1155                      1160                      1165  
 Ala Ser His Leu Pro Pro Trp Ala Ile His Thr Leu Ala Ser Trp Gly  
                                  1170                      1175                      1180  
 Leu Leu Arg Gly Glu Arg Pro Thr Arg Ile Pro Arg Leu Leu Pro Arg  
 1185                      1190                      1195                      1200  
 Ser Gln Arg Gln Leu Gly Pro Pro Ala Ser His Gln Pro Leu Pro Gly  
                                  1205                      1210                      1215  
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 <212> DNA  
 <213> Homo sapiens

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<210> 2856  
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 <213> Homo sapiens

<400> 2856  
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 Cys Thr Asp Asp Ser Ser Glu Glu Ala Lys Thr Leu Thr Met Asp Ile  
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 Ser Ser Ala Ser Ser Asp Gly Pro His Pro Val Ile Thr Pro Ser Arg  
 85 90 95  
 Ala Ser Glu Ser Ser Ala Ser Ser Asp Gly Pro His Pro Val Ile Thr  
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 Pro Ser Arg Ala Ser Glu Ser Ser Ala Ser Ser Asp Gly Pro His Pro  
 115 120 125  
 Val Ile Thr Pro Ser Trp Ser Pro Gly Ser Asp Val Thr Leu Leu Ala  
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<210> 2857
<211> 1668
<212> DNA
<213> Homo sapiens
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&lt;210&gt; 2858

&lt;211&gt; 220

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2858

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Glu	Glu	Phe	Leu	Val	Ser	Leu	Ala	Leu	Leu	Ile	Thr	Glu	Gly	Arg	Thr
			20					25					30		
Pro	Glu	Cys	Ser	Val	Lys	Gly	Arg	Thr	Glu	Ser	Phe	His	Cys	Pro	Pro
		35					40					45			
Ala	Gln	Ser	Cys	Tyr	Pro	Val	Thr	Thr	Lys	His	Glu	Cys	Ser	Asp	Lys

50	55	60
Leu Ala Gln Cys Arg Gln Ala Arg Arg Thr Arg Ser Glu Val Thr Leu		
65	70	75
Leu Trp Lys Asn Asn Leu Pro Ile Met Val Glu Met Met Leu Leu Pro		80
	85	90
Asp Cys Cys Tyr Ser Asp Asp Gly Pro Thr Thr Glu Gly Ile Asp Leu		95
	100	105
Asn Asp Pro Ala Ile Lys Gln Asp Ala Leu Leu Leu Glu Arg Trp Ile		110
	115	120
Leu Glu Pro Val Pro Arg Gln Asn Gly Asp Arg Phe Ile Glu Glu Lys		125
	130	135
Thr Leu Leu Leu Ala Val Arg Ser Phe Val Phe Phe Ser Gln Leu Ser		140
145	150	155
Ala Trp Leu Ser Val Ser His Gly Ala Ile Pro Arg Asn Ile Leu Tyr		160
	165	170
Arg Ile Ser Ala Ala Asp Val Asp Leu Gln Trp Asn Phe Ser Gln Thr		175
	180	185
Pro Ile Glu His Val Phe Pro Val Pro Asn Val Ser His Asn Val Ala		190
	195	200
Leu Lys Val Ser Gly Gln Ser Leu Ala Gln Thr Ile		205
	210	215
		220

&lt;210&gt; 2859

&lt;211&gt; 1029

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2859

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780

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<210> 2860

<211> 343

<212> PRT

<213> Homo sapiens

<400> 2860

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			20					25					30		
Asp	Ile	Ser	Ala	Arg	Lys	Met	Ala	His	Pro	Ala	Met	Phe	Pro	Arg	Arg
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Gly	Ser	Gly	Ser	Gly	Ser	Ala	Ser	Ala	Leu	Asn	Ala	Ala	Gly	Thr	Gly
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Val	Gly	Ser	Asn	Ala	Thr	Ser	Ser	Glu	Asp	Phe	Pro	Pro	Pro	Ser	Leu
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Leu	Gln	Pro	Pro	Pro	Pro	Ala	Ala	Ser	Ser	Thr	Ser	Gly	Pro	Gln	Pro
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Pro	Pro	Pro	Gln	Ser	Leu	Asn	Leu	Leu	Ser	Gln	Ala	Gln	Leu	Gln	Ala
			100					105						110	
Gln	Pro	Leu	Ala	Pro	Gly	Gly	Thr	Gln	Met	Lys	Lys	Lys	Ser	Gly	Phe
	115						120						125		
Gln	Ile	Thr	Ser	Val	Thr	Pro	Ala	Gln	Ile	Ser	Ala	Ser	Ile	Ser	Ser
	130						135					140			
Asn	Asn	Ser	Ile	Ala	Glu	Asp	Thr	Glu	Ser	Tyr	Asp	Asp	Leu	Asp	Glu
145					150					155					160
Ser	His	Thr	Glu	Asp	Leu	Ser	Ser	Ser	Glu	Ile	Leu	Asp	Val	Ser	Leu
			165						170					175	
Ser	Arg	Ala	Thr	Asp	Leu	Gly	Glu	Pro	Glu	Arg	Ser	Ser	Ser	Glu	Glu
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Thr	Leu	Asn	Asn	Phe	Gln	Glu	Ala	Glu	Thr	Pro	Gly	Ala	Val	Ser	Pro
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Asn	Gln	Pro	His	Leu	Pro	Gln	Pro	His	Leu	Pro	His	Leu	Pro	Gln	Gln
	210					215						220			
Asn	Val	Val	Ile	Asn	Gly	Asn	Ala	His	Pro	His	His	Leu	His	His	His
225					230					235					240
His	Gln	Ile	His	His	Gly	His	His	Leu	Gln	His	Gly	His	His	His	Pro
			245						250					255	
Ser	His	Val	Ala	Val	Ala	Ser	Ala	Ser	Ile	Thr	Gly	Gly	Pro	Pro	Ser
			260					265					270		
Ser	Pro	Val	Ser	Arg	Lys	Leu	Ser	Thr	Thr	Gly	Ser	Ser	Asp	Ser	Ile
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Thr	Pro	Val	Ala	Pro	Thr	Ser	Ala	Val	Ser	Ser	Ser	Gly	Ser	Pro	Ala

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      290              295              300
Ser Val Met Thr Asn Met Arg Ala Pro Ser Thr Thr Gly Gly Ile Gly
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Ile Asn Ser Val Thr Gly Thr Ser Thr Val Asn Asn Val Asn Ile Thr
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Ala Val Gly Ser Phe Asn Ser
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<210> 2861  
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 <212> DNA  
 <213> Homo sapiens

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<400> 2861
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180
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aaaaaactag attctactca gactacacat tcttcaagtc ttattgctgg tcacacaggg
300
ccagtaccaa agaaacccca ggatttagct catactggca tctcttcagg ccttattgct
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480
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540
gatgcttctt cgttaacaca agtaacaaag gtgcaccagc attcagctgt ccagcagaac
600
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<210> 2862  
 <211> 252  
 <212> PRT  
 <213> Homo sapiens

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<400> 2862
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Ser Glu Ala Leu Ala Val Ile Asn Asn Gly Asn Lys Gly Pro Pro Val
35     40     45
Gly Ser Arg Ile Ser Met Pro Thr Thr Lys Pro Arg Pro Gly Leu Arg

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50	55	60
Glu Glu Lys Leu Ala Ser Ile Met Ser Lys Leu Pro Leu Ala Thr Pro		
65	70	75
Lys Lys Leu Asp Ser Thr Gln Thr Thr His Ser Ser Ser Leu Ile Ala		80
	85	90
Gly His Thr Gly Pro Val Pro Lys Lys Pro Gln Asp Leu Ala His Thr		95
	100	105
Gly Ile Ser Ser Gly Leu Ile Ala Gly Ser Ser Ile Gln Asn Pro Lys		110
	115	120
Val Ser Leu Glu Pro Leu Pro Ala Arg Leu Leu Gln Gln Gly Leu Gln		125
	130	135
Arg Ser Ser Gln Ile His Thr Ser Ser Ser Ser Gln Thr His Val Ser		140
145	150	155
Ser Ser Ser Gln Ala Gln Ile Ala Ala Ser Ser His Ala Leu Gly Thr		160
	165	170
Ser Glu Ala Gln Asp Ala Ser Ser Leu Thr Gln Val Thr Lys Val His		175
	180	185
Gln His Ser Ala Val Gln Gln Asn Tyr Val Ser Pro Leu Gln Ala Thr		190
	195	200
Ile Ser Lys Ser Gln Thr Asn Pro Val Val Lys Leu Ser Asn Asn Pro		205
	210	215
Gln Leu Ser Cys Ser Ser Ser Leu Ile Lys Thr Ser Asp Lys Pro Leu		220
225	230	235
Met Tyr Arg Leu Pro Leu Ser Thr Pro Phe Thr Arg		240
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&lt;210&gt; 2863

&lt;211&gt; 711

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2863

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 gccgtgcccc gaatcccagt cagaagtcc agcctgccac tggtctctga tgccatgcc  
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 420  
 ccacaagtca atagcatcct taaagctaata gaatacagtt tcaaagtgcc agaatttgac  
 480  
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 tttgatggcc atgcagggtt tgcctgttcc caggcagtca gtgaaagact cttttattat  
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<210> 2864

<211> 237

<212> PRT

<213> Homo sapiens

<400> 2864

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			20					25					30		
Ser	Gly	Arg	Ile	Val	Trp	Ser	Pro	Ala	Val	Pro	Gly	Ile	Pro	Val	Arg
		35					40					45			
Ser	Ser	Ser	Leu	Pro	Leu	Phe	Ser	Asp	Ala	Met	Pro	Ala	Pro	Thr	Gln
	50					55					60				
Leu	Phe	Phe	Pro	Leu	Ile	Arg	Asn	Cys	Glu	Leu	Ser	Arg	Ile	Tyr	Gly
65					70					75					80
Thr	Ala	Cys	Tyr	Cys	His	His	Lys	His	Leu	Cys	Cys	Ser	Ser	Ser	Tyr
				85					90					95	
Ile	Pro	Gln	Ser	Arg	Leu	Arg	Tyr	Thr	Pro	His	Pro	Ala	Tyr	Ala	Thr
			100						105					110	
Phe	Cys	Arg	Pro	Lys	Glu	Asn	Trp	Trp	Gln	Tyr	Thr	Gln	Gly	Arg	Arg
			115						120				125		
Tyr	Ala	Ser	Thr	Pro	Gln	Lys	Phe	Tyr	Leu	Thr	Pro	Pro	Gln	Val	Asn
			130			135					140				
Ser	Ile	Leu	Lys	Ala	Asn	Glu	Tyr	Ser	Phe	Lys	Val	Pro	Glu	Phe	Asp
145					150					155					160
Gly	Lys	Asn	Val	Ser	Ser	Ile	Leu	Gly	Phe	Asp	Ser	Asn	Gln	Leu	Pro
				165					170					175	
Ala	Asn	Ala	Pro	Ile	Glu	Asp	Arg	Arg	Ser	Ala	Ala	Thr	Cys	Leu	Gln
			180					185					190		
Thr	Arg	Gly	Met	Leu	Leu	Gly	Val	Phe	Asp	Gly	His	Ala	Gly	Cys	Ala
			195				200						205		
Cys	Ser	Gln	Ala	Val	Ser	Glu	Arg	Leu	Phe	Tyr	Tyr	Ile	Ala	Val	Ser
		210				215					220				
Leu	Leu	Pro	His	Glu	Thr	Leu	Leu	Glu	Ile	Glu	Asn	Ala			
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<210> 2865

<211> 585

<212> DNA

<213> Homo sapiens

<400> 2865

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180  
tgtgtctcca gaagcaaacg agacatttct tcatataaat ggaaaacaga ttccatcata  
240

ggacccattc gtctgaaaag ggatcgaagt gcaagtggca attcaggatt tcagcatgaa  
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 480  
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<210> 2866

<211> 134

<212> PRT

<213> Homo sapiens

<400> 2866

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Ser	Met	Ser	Ser	Val	Tyr	Leu	Gln	Cys	Lys	Val	Leu	Ile	Cys	Asp	Ser
			20					25					30		
Ser	Asp	His	Gln	Ser	Arg	Cys	Asn	Gln	Gly	Cys	Val	Ser	Arg	Ser	Lys
		35					40					45			
Arg	Asp	Ile	Ser	Ser	Tyr	Lys	Trp	Lys	Thr	Asp	Ser	Ile	Ile	Gly	Pro
	50					55				60					
Ile	Arg	Leu	Lys	Arg	Asp	Arg	Ser	Ala	Ser	Gly	Asn	Ser	Gly	Phe	Gln
65					70				75					80	
His	Glu	Thr	His	Ala	Glu	Glu	Thr	Pro	Asn	Gln	Pro	Phe	Asn	Ser	Val
			85					90					95		
His	Leu	Phe	Ser	Phe	Met	Val	Leu	Ala	Leu	Asn	Val	Val	Thr	Val	Ala
			100					105					110		
Thr	Ile	Thr	Val	Arg	His	Phe	Val	Asn	Gln	Arg	Ala	Asp	Tyr	Lys	Tyr
	115						120					125			
Gln	Lys	Leu	Gln	Asn	Tyr										
	130														

<210> 2867

<211> 444

<212> DNA

<213> Homo sapiens

<400> 2867

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 300

tcccagtggc gaccaagctc ttcaaggggg ggggtgcagtc ttggcggggc cccaggacgt  
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 444

<210> 2868

<211> 84

<212> PRT

<213> Homo sapiens

<400> 2868

Met	Leu	Phe	Ser	Leu	Lys	Tyr	Leu	Gly	Met	Thr	Leu	Val	Glu	Gln	Pro
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Lys	Gly	Glu	Glu	Leu	Ser	Ala	Ala	Ala	Ile	Lys	Arg	Ile	Val	Ala	Thr
		20						25					30		
Ala	Lys	Ala	Ser	Gly	Lys	Lys	Leu	Gln	Lys	Val	Thr	Leu	Lys	Val	Ser
		35					40					45			
Pro	Arg	Gly	Ile	Ile	Leu	His	Pro	Gly	His	His	Pro	Ala	Pro	Arg	Gln
	50					55					60				
His	Cys	Cys	His	Ser	Arg	Leu	Val	Ala	Ala	Ala	Pro	Arg	Pro	Cys	Trp
65					70				75					80	
Trp	Cys	Trp	Arg												

<210> 2869

<211> 5811

<212> DNA

<213> Homo sapiens

<400> 2869

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<210> 2870

<211> 258

<212> PRT

<213> Homo sapiens

<400> 2870

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Pro	Ile	Lys	Ser	Asp	Leu	His	Ile	Lys	Asp	Asp	Pro	Asp	Gly	Ile	Pro
		20						25					30		
Ser	Lys	Arg	Phe	Lys	Thr	Met	Ser	Pro	Ser	Gln	Met	Ile	Met	Pro	Asn
		35					40					45			
Val	Met	Glu	Met	Ile	Ala	Ala	Leu	Gly	Pro	Gly	Pro	Ser	Pro	Tyr	Pro
	50					55				60					
Leu	Pro	Pro	Pro	Pro	Gly	Gly	Thr	Asn	Ser	Asn	Asp	Tyr	Ser	Ser	Gln
65					70					75					80
Gly	Asn	Asn	Tyr	Gln	Gly	His	Gly	Asn	Phe	Asp	Phe	Pro	His	Gly	Asn
			85					90					95		
Pro	Gly	Gly	Thr	Ser	Met	Asn	Asp	Phe	Met	His	Gly	Pro	Pro	Gln	Leu
			100					105					110		
Ser	His	Pro	Pro	Asp	Met	Pro	Asn	Asn	Met	Ala	Ala	Leu	Glu	Lys	Pro
		115					120					125			
Leu	Ser	His	Pro	Met	Gln	Glu	Thr	Met	Pro	His	Ala	Gly	Ser	Ser	Asp
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Gln	Pro	His	Pro	Ser	Ile	Gln	Gln	Gly	Leu	His	Val	Pro	His	Pro	Ser
145					150					155					160
Ser	Gln	Ser	Gly	Pro	Pro	Leu	His	His	Ser	Gly	Ala	Pro	Pro	Pro	Pro
			165					170						175	
Pro	Ser	Gln	Pro	Pro	Arg	Gln	Pro	Pro	Gln	Ala	Ala	Pro	Ser	Ser	His
		180					185						190		
Pro	His	Ser	Asp	Leu	Thr	Phe	Asn	Pro	Ser	Ser	Ala	Leu	Glu	Gly	Gln
		195					200					205			
Ala	Gly	Ala	Gln	Gly	Ala	Ser	Asp	Met	Pro	Glu	Pro	Ser	Leu	Asp	Leu
	210					215				220					
Leu	Pro	Glu	Leu	Thr	Asn	Pro	Asp	Glu	Leu	Leu	Ser	Tyr	Leu	Asp	Pro
225					230					235				240	
Pro	Asp	Leu	Pro	Ser	Asn	Ser	Asn	Asp	Asp	Leu	Leu	Ser	Leu	Phe	Glu
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Asn Asn

<210> 2871

<211> 786

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2871

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&lt;210&gt; 2872

&lt;211&gt; 153

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2872

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Phe Gly Glu Pro Tyr Ile Phe Glu Glu Leu Leu Gly Leu Lys Ile Arg
20      25      30
Ile Ser Pro Asp Ala Phe Phe Gln Ile Asn Thr Ala Gly Ala Glu Met
35      40      45
Leu Tyr Trp Thr Val Gly Glu Leu Thr Gly Val Asn Ser Asp Thr Ile
50      55      60
Leu Leu Asp Ile Cys Cys Gly Thr Gly Val Ile Gly Leu Pro Leu Ala
65      70      75      80
Gln His Thr Ser Arg Val Leu Gly Ile Glu Leu Leu Glu Gln Ala Val
85      90      95
Glu Asp Ala Arg Trp Thr Ala Ala Phe Asn Gly Ile Thr Asn Ser Glu
100     105     110
Phe His Thr Gly Gln Ala Glu Lys Ile Leu Pro Gly Leu Leu Lys Ser
115     120     125
Lys Glu Asp Gly Gln Ser Ile Val Ala Val Val Asn Pro Ala Arg Ala

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<210> 2873  
 <211> 1187  
 <212> DNA  
 <213> Homo sapiens

<400> 2873  
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 240  
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 1020  
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 1080  
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<210> 2874  
 <211> 248  
 <212> PRT

<213> Homo sapiens

<400> 2874

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      20           25           30
Lys Leu Lys Ala Ser Ser Arg Thr Ser Ala Leu Leu Ser Gly Phe Ala
      35           40           45
Met Val Ala Met Val Glu Val Gln Leu Asp Ala Asp His Asp Tyr Pro
      50           55           60
Pro Gly Leu Leu Ile Ala Phe Ser Ala Cys Thr Thr Val Leu Val Ala
      65           70           75           80
Gly His Leu Phe Ala Leu Met Ile Ser Thr Cys Ile Leu Pro Asn Ile
      85           90           95
Glu Ala Val Ser Asn Cys Thr Ile Ser Thr Arg Lys Glu Ser Pro His
      100          105          110
Glu Arg Met His Arg His Ile Glu Leu Ala Trp Ala Phe Ser Thr Val
      115          120          125
Ile Gly Thr Leu Leu Phe Leu Ala Glu Val Val Leu Leu Cys Trp Val
      130          135          140
Lys Phe Leu Pro Leu Lys Lys Gln Pro Gly Gln Pro Arg Pro Thr Ser
      145          150          155          160
Lys Pro Pro Ala Ser Gly Ala Ala Ala Asn Val Ser Thr Ser Gly Ile
      165          170          175
Thr Pro Gly Gln Ala Ala Ala Ile Ala Ser Thr Thr Ile Met Val Pro
      180          185          190
Phe Gly Leu Ile Phe Ile Val Phe Ala Val His Phe Tyr Arg Ser Leu
      195          200          205
Val Ser His Lys Thr Asp Arg Gln Phe Gln Glu Leu Asn Glu Leu Ala
      210          215          220
Glu Phe Ala Arg Leu Gln Asp Gln Leu Asp His Arg Gly Asp His Pro
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<210> 2875

<211> 593

<212> DNA

<213> Homo sapiens

<400> 2875

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caaggctttg gttttacatt aagacatttt attgtttatc cccagagtc tgcaattcaa
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ccaatggata ccatatttgt taagcaagtt aaagaaggag gacctgcttt tgaagctgga
360

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<210> 2876  
 <211> 193  
 <212> PRT  
 <213> Homo sapiens

<400> 2876  
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 35 40 45  
 Pro Gly Pro Lys Thr Val Thr Leu Lys Arg Thr Ser Gln Gly Phe Gly  
 50 55 60  
 Phe Thr Leu Arg His Phe Ile Val Tyr Pro Pro Glu Ser Ala Ile Gln  
 65 70 75 80  
 Phe Ser Tyr Lys Asp Glu Glu Asn Gly Asn Arg Gly Gly Lys Gln Arg  
 85 90 95  
 Asn Arg Leu Glu Pro Met Asp Thr Ile Phe Val Lys Gln Val Lys Glu  
 100 105 110  
 Gly Gly Pro Ala Phe Glu Ala Gly Leu Cys Thr Gly Asp Arg Ile Ile  
 115 120 125  
 Lys Val Asn Gly Glu Ser Val Ile Gly Lys Thr Tyr Ser Gln Val Ile  
 130 135 140  
 Ala Leu Ile Gln Asn Ser Asp Thr Thr Leu Glu Leu Ser Val Met Pro  
 145 150 155 160  
 Lys Asp Glu Asp Ile Leu Gln Val Val Ser Phe Ile Tyr Ser Tyr Met  
 165 170 175  
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 180 185 190  
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<210> 2877  
 <211> 1921  
 <212> DNA  
 <213> Homo sapiens

<400> 2877  
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720  
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780  
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840  
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900  
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960  
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 a  
 1921

<210> 2878

<211> 451

<212> PRT

<213> Homo sapiens

<400> 2878

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		20					25						30		
Thr	Glu	Glu	Gly	Lys	Glu	Val	Trp	Asp	Tyr	Val	Thr	Val	Arg	Lys	Asp
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Ala	Tyr	Met	Phe	Trp	Trp	Leu	Tyr	Tyr	Ala	Thr	Thr	Pro	Ala	Arg	Thr
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Ser	Glu	Leu	Pro	Leu	Val	Met	Trp	Leu	Gln	Gly	Gly	Pro	Gly	Gly	Ser
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Ser	Thr	Gly	Phe	Gly	Asn	Phe	Glu	Glu	Ile	Gly	Pro	Leu	Asp	Ser	Asp
				85					90				95		
Leu	Lys	Pro	Arg	Lys	Thr	Thr	Trp	Leu	Gln	Ala	Ala	Ser	Leu	Leu	Phe
			100					105					110		
Val	Asp	Asn	Pro	Val	Gly	Thr	Gly	Phe	Ser	Tyr	Val	Asn	Gly	Ser	Gly
	115						120					125			
Ala	Tyr	Ala	Lys	Asp	Leu	Ala	Met	Val	Ala	Ser	Asp	Met	Met	Val	Leu
	130					135					140				
Leu	Lys	Thr	Phe	Phe	Ser	Cys	His	Lys	Glu	Phe	Gln	Thr	Val	Pro	Phe
145					150					155					160
Tyr	Ile	Phe	Ser	Glu	Ser	Tyr	Gly	Gly	Lys	Met	Ala	Ala	Gly	Ile	Gly
				165					170					175	
Leu	Glu	Leu	Tyr	Lys	Ala	Ile	Gln	Arg	Gly	Thr	Ile	Lys	Cys	Asn	Phe
			180					185					190		
Ala	Gly	Val	Ala	Leu	Gly	Asp	Ser	Trp	Ile	Ser	Pro	Val	Asp	Ser	Val
	195						200					205			
Leu	Ser	Trp	Gly	Pro	Tyr	Leu	Tyr	Ser	Met	Ser	Leu	Leu	Glu	Asp	Lys
	210					215					220				
Gly	Leu	Ala	Glu	Val	Ser	Lys	Val	Ala	Glu	Gln	Val	Leu	Asn	Ala	Val
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Asn	Lys	Gly	Leu	Tyr	Arg	Glu	Ala	Thr	Glu	Leu	Trp	Gly	Lys	Ala	Glu
				245					250					255	
Met	Ile	Ile	Glu	Gln	Asn	Thr	Asp	Gly	Val	Asn	Phe	Tyr	Asn	Ile	Leu
			260					265					270		
Thr	Lys	Ser	Thr	Pro	Thr	Ser	Thr	Met	Glu	Ser	Ser	Leu	Glu	Phe	Thr
		275					280						285		
Gln	Ser	His	Leu	Val	Cys	Leu	Cys	Gln	Arg	His	Val	Arg	His	Leu	Gln
	290					295					300				
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Lys	Ile	Ile	Pro	Glu	Asp	Gln	Ser	Trp	Gly	Gly	Gln	Ala	Thr	Asn	Val

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          370          375          380
Leu Lys Trp Pro Glu Leu Ser Arg Phe Asn Gln Leu Lys Trp Lys Ala
          385          390          395          400
Leu Tyr Ser Asp Pro Lys Ser Leu Glu Thr Ser Ala Phe Val Lys Ser
          405          410          415
Tyr Lys Asn Leu Ala Phe Tyr Trp Ile Leu Lys Ala Gly His Met Val
          420          425          430
Pro Ser Asp Gln Gly Asp Met Ala Leu Lys Met Met Arg Leu Val Thr
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Gln Gln Glu
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&lt;210&gt; 2879

&lt;211&gt; 1352

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2879

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&lt;210&gt; 2880

&lt;211&gt; 376

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2880

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Leu	Ile	Gln	Pro	Ala	Asn	His	Val	Leu	Pro	Ala	Ser	Phe	Gly	Asn	Ser	35	40	45	
Asp	Trp	Tyr	Leu	Val	Thr	Gly	Ser	Ser	Leu	Thr	Cys	Thr	Pro	Gly	Pro	50	55	60	
Ala	Arg	Gly	Glu	Arg	Pro	Pro	Arg	Leu	Gly	Leu	Pro	Thr	Pro	Gly	Val	65	70	75	80
Pro	Val	Xaa	Asp	Lys	Tyr	Ala	Pro	Lys	Leu	Asp	Ser	Pro	Tyr	Phe	Arg	85	90	95	
His	Ser	Ser	Val	Ser	Phe	Phe	Pro	Ser	Phe	Pro	Pro	Ala	Ile	Pro	Gly	100	105	110	
Leu	Pro	Thr	Leu	Leu	Pro	His	Pro	Gly	Pro	Phe	Gly	Ser	Leu	Gln	Gly	115	120	125	
Ala	Phe	Gln	Pro	Lys	Thr	Ser	Ser	Pro	Ile	Glu	Val	Ala	Arg	Arg	Ala	130	135	140	
Gly	Ala	Val	His	Thr	Leu	Leu	Gln	Lys	Ala	Pro	Gly	Val	Ser	Asp	Pro	145	150	155	160
Tyr	Arg	Ala	Val	Val	Lys	Lys	Pro	Gly	Arg	Trp	Cys	Ala	Val	His	Val	165	170	175	
Gln	Ile	Ala	Trp	Gln	Ile	Tyr	Arg	His	Gln	Gln	Lys	Ile	Lys	Glu	Met	180	185	190	
Gln	Leu	Asp	Pro	His	Lys	Leu	Glu	Val	Gly	Ala	Lys	Leu	Asp	Leu	Phe	195	200	205	
Gly	Arg	Pro	Pro	Ala	Pro	Gly	Val	Phe	Ala	Gly	Phe	His	Tyr	Pro	Gln	210	215	220	
Asp	Leu	Ala	Arg	Pro	Leu	Phe	Pro	Ser	Thr	Gly	Ala	Ala	His	Pro	Ala	225	230	235	240
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<210> 2881
<211> 3021
<212> DNA
<213> Homo sapiens
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2116



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 <211> 96  
 <212> PRT  
 <213> Homo sapiens

<400> 2882  
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 35 40 45  
 Pro Ala Ile Ser Pro Leu Pro Thr Asp Ser Gln Ser Pro Leu Ala Ser  
 50 55 60  
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 Lys Lys Lys Lys Phe Tyr Val Phe Lys Leu Leu Leu Gln Asp Phe Asn  
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 <212> DNA  
 <213> Homo sapiens

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<210> 2884

<211> 172

<212> PRT

<213> Homo sapiens

<400> 2884

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Leu	Arg	Gly	Cys	Tyr	His	Glu	Gly	Pro	Ala	Gly	Gly	Ala	Ala	Ala	Ala
			20					25					30		
Pro	Ser	Ser	Val	Asp	Thr	Tyr	Pro	Tyr	Gly	Leu	Pro	Thr	Pro	Pro	Glu
		35					40				45				
Met	Ser	Pro	Leu	Asp	Val	Leu	Glu	Pro	Glu	Gln	Thr	Phe	Phe	Ser	Ser
	50					55				60					
Pro	Cys	Gln	Glu	Glu	His	Gly	His	Pro	Arg	Arg	Ile	Pro	His	Leu	Pro
65					70				75					80	
Gly	His	Pro	Tyr	Ser	Pro	Glu	Tyr	Ala	Pro	Ser	Pro	Leu	His	Cys	Ser
			85					90					95		
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Met	Ser	Pro	Val	Pro	Gly	Cys	Pro	Pro	Ser	Pro	Ala	Tyr	Tyr	Ser	Pro
		115				120					125				
Ala	Thr	Tyr	His	Pro	Leu	His	Ser	Asn	Leu	Gln	Ala	His	Leu	Gly	Gln
	130					135					140				
Leu	Ser	Pro	Pro	Pro	Glu	His	Pro	Gly	Phe	Asp	Ala	Leu	Asp	Gln	Leu
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<210> 2885

<211> 807

<212> DNA

<213> Homo sapiens

<400> 2885

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 807

&lt;210&gt; 2886

&lt;211&gt; 269

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2886

Lys	Leu	Gln	Gly	Ile	Gly	His	Phe	Xaa	Asn	Thr	Ile	Arg	Glu	Met	Phe
1			5						10					15	
Ser	Gln	Phe	Ala	Glu	Phe	Asp	Asp	Glu	Leu	Asp	Ser	Met	Ala	Pro	Val
		20						25					30		
Gly	Arg	Asp	Ala	Glu	Thr	Leu	Gln	Lys	Gln	Lys	Glu	Thr	Ile	Lys	Ala
	35						40					45			
Phe	Leu	Lys	Lys	Leu	Glu	Ala	Leu	Ile	Ala	Ser	Asn	Asp	Asn	Ala	Asn
	50					55					60				
Lys	Thr	Cys	Lys	Met	Met	Leu	Ala	Thr	Glu	Glu	Thr	Ser	Pro	Asp	Leu
65				70					75					80	
Val	Gly	Ile	Lys	Arg	Asp	Leu	Glu	Ala	Leu	Ser	Lys	Gln	Cys	Asn	Lys
			85						90					95	
Leu	Leu	Asp	Arg	Ala	Gln	Ala	Arg	Glu	Glu	Gln	Val	Glu	Gly	Thr	Ile
		100						105					110		
Lys	Arg	Leu	Glu	Glu	Phe	Tyr	Ser	Lys	Leu	Lys	Glu	Phe	Ser	Ile	Leu
		115					120					125			
Leu	Gln	Lys	Ala	Glu	Glu	His	Glu	Glu	Ser	Gln	Gly	Pro	Val	Gly	Met
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145					150					155				160	
Lys	Glu	Glu	Ile	Glu	Pro	Leu	Gln	Gly	Lys	Gln	Gln	Asp	Val	Asn	Trp
			165					170						175	
Leu	Gly	Gln	Gly	Leu	Ile	Gln	Ser	Ala	Ala	Lys	Ser	Thr	Ser	Thr	Gln
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	210				215						220				
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&lt;210&gt; 2887

&lt;211&gt; 1945

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2887

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<210> 2888

<211> 315

<212> PRT

<213> Homo sapiens

<400> 2888

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		20					25						30		
Thr	Arg	Ser	Met	Leu	Lys	Met	Thr	Ser	Ile	Asn	Arg	Arg	Ser	Arg	
		35				40				45					
Thr	Ser	Thr	Lys	Ser	Thr	Arg	Thr	Ser	Ala	Arg	Pro	Gly	Leu	Thr	Ala
	50				55				60						
Thr	Val	Ser	Ile	Gly	Leu	Ser	Asp	Ser	Pro	Thr	Trp	Arg	His	Cys	Trp
65				70					75					80	
Met	Thr	Ala	Arg	Ser	Cys	Ser	Gly	Glu	Lys	Gly	Gly	His	Trp	Ala	Pro
			85				90					95			
Arg	Gln	Val	Gly	Val	Tyr	Leu	Leu	Pro	Gly	Arg	Val	Gly	Cys	Val	Ser
		100					105					110			
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		115				120					125				
Ala	Arg	Arg	Gly	Ser	Ala	Val	Ser	Ala	Leu	Ala	Ser	Gly	Leu	Val	Glu
	130				135						140				
Glu	Pro	Met	Leu	Gly	Pro	Pro	Phe	His	Pro	Thr	Pro	Arg	Phe	Lys	Ala
145				150					155					160	
Val	Ser	Ala	Lys	Ser	Lys	Glu	Asp	Leu	Val	Ser	Gln	Gly	Phe	Thr	Glu
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Gly Tyr Leu Gln Arg Glu Ser Lys Phe Phe Glu His Phe Ile Glu Gly
225                230                235                240
Gly Arg Thr Val Lys Glu Phe Cys Gln Gln Glu Val Glu Pro Met Cys
                245                250                255
Lys Glu Ser Asp His Ile His Ile Ile Ala Leu Ala Gln Ala Leu Ser
                260                265                270
Val Ser Ile Gln Val Glu Tyr Met Asp Arg Gly Glu Gly Gly Thr Thr
                275                280                285
Asn Pro His Ile Phe Pro Glu Gly Ser Glu Pro Lys Val Tyr Leu Leu
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Tyr Arg Pro Gly His Tyr Asp Ile Leu Tyr Lys
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<210> 2889  
 <211> 614  
 <212> DNA  
 <213> Homo sapiens

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<210> 2890  
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 <212> PRT  
 <213> Homo sapiens

<400> 2890  
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Pro Glu Val Lys Leu Pro Arg Ala Pro Glu Val Gln Leu Lys Ala Thr
      35           40           45
Lys Ala Glu Gln Ala Glu Gly Met Glu Phe Gly Phe Lys Met Pro Lys
      50           55           60
Met Thr Met Pro Lys Leu Gly Arg Ala Glu Ser Pro Ser Arg Gly Lys
      65           70           75           80
Pro Gly Glu Ala Gly Ala Glu Val Ser Gly Lys Leu Val Thr Leu Pro
      85           90           95
Cys Leu Gln Pro Glu Val Asp Gly Glu Ala His Val Gly Val Pro Ser
      100          105          110
Leu Thr Leu Pro Ser Val Glu Leu Asp Leu Pro Gly Ala Leu Gly Leu
      115          120          125
Gln Gly Gln Val Pro Ala Ala Lys Met Gly Lys Gly Glu Arg Ala Glu
      130          135          140
Gly Pro Glu Val Ala Ala Gly Val Arg Glu Val Gly Phe Arg Val Pro
      145          150          155          160
Ser Val Glu Ile Val Thr Pro Gln Leu Pro Ala Val Glu Ile Glu Glu
      165          170          175
Gly Arg Leu Glu Met Ile Glu Thr Lys Val Lys Pro Ser Ser Lys Phe
      180          185          190
Ser Leu Pro Lys Phe Gly Leu Ser Gly Pro Lys Val
      195          200

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&lt;210&gt; 2891

&lt;211&gt; 565

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2891

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565

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&lt;210&gt; 2892



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&lt;210&gt; 2894

&lt;211&gt; 490

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2894

Met Phe Ile Ser Leu Gly Gly Ala Pro Asp Arg Gln Ser Leu Phe Pro

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Gln	Leu	Gly	Gly	Ser	Gly	Gly	Gly	Ser	Ala	Arg	Gly	Tyr	Cys	Arg	
	20					25						30			
Gln	Val	Ser	Val	Ser	Leu	His	Pro	Gly	Thr	Gly	Leu	Phe	Ser	Pro	Phe
	35					40						45			
Cys	Ser	Val	Pro	Leu	Trp	Cys	Ile	Tyr	Phe	Leu	Ser	Phe	Cys	Ile	Val
	50					55					60				
Leu	Ser	Leu	Pro	Ser	Ala	Ser	Leu	His	Leu	Cys	Leu	Ser	Cys	Leu	His
65					70					75					80
Phe	Leu	Asn	Leu	Asp	Cys	Pro	Cys	Leu	Phe	Leu	Cys	His	Ser	Leu	Ser
				85					90					95	
Ser	Pro	Ser	Val	Cys	Gly	Ser	Ala	Ser	Leu	Ser	His	Ser	Pro	Tyr	Asn
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Trp	Pro	Leu	Pro	Ala	Gln	Thr	Phe	Leu	Asp	Glu	Leu	His	Glu	Thr	Gly
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Gln	Leu	His	Ser	Met	Ser	Thr	Trp	Met	Glu	Leu	Tyr	Pro	Ala	Val	Ser
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Thr	Asp	Val	Arg	Phe	Ala	Asn	Met	Leu	Gly	Gln	Pro	Gly	Ser	Thr	Pro
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Leu	Asp	Leu	Phe	Lys	Phe	Tyr	Val	Glu	Glu	Leu	Lys	Ala	Arg	Phe	His
				165					170					175	
Asp	Glu	Lys	Lys	Ile	Ile	Lys	Asp	Ile	Leu	Lys	Asp	Arg	Gly	Phe	Cys
		180						185					190		
Val	Glu	Val	Asn	Thr	Ala	Phe	Glu	Asp	Phe	Ala	His	Val	Ile	Ser	Phe
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Asp	Lys	Arg	Ala	Ala	Ala	Leu	Asp	Ala	Gly	Asn	Ile	Lys	Leu	Thr	Phe
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Asn	Ser	Leu	Leu	Glu	Lys	Ala	Glu	Ala	Arg	Glu	Arg	Glu	Arg	Glu	Lys
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		275					280					285			
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Thr	Glu	Cys	Gln	His	Leu	His	Thr	Lys	Gly	Arg	Lys	His	Gly	Arg	Lys
305					310					315					320
Gly	Lys	Lys	His	His	His	Lys	Arg	Ser	His	Ser	Pro	Ser	Gly	Ser	Glu
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Ser	Glu	Glu	Glu	Glu	Leu	Pro	Pro	Pro	Ser	Leu	Arg	Pro	Pro	Lys	Arg
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Arg	Arg	Arg	Asn	Pro	Ser	Glu	Ser	Gly	Ser	Glu	Pro	Ser	Ser	Ser	Leu
		355					360					365			
Asp	Ser	Val	Glu	Ser	Gly	Gly	Ala	Ala	Leu	Gly	Gly	Arg	Gly	Ser	Pro
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Pro	Lys	Lys	Lys	Thr	Lys	Lys	Arg	Arg	His	Lys	Ser	Asn	Ser	Pro	Glu
				405					410					415	
Ser	Glu	Thr	Asp	Pro	Glu	Glu	Lys	Ala	Gly	Lys	Glu	Ser	Asp	Glu	Lys
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Glu	Gln	Glu	Gln	Asp	Lys	Asp	Arg	Glu	Leu	Gln	Gln	Ala	Glu	Leu	Pro

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Asn Arg Ser Pro Gly Phe Gly Ile Lys Lys Glu Lys Thr Gly Trp Asp
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Thr Leu Leu Gln Gln Leu Asp Asp His Gln
          485              490

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<210> 2895  
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 <212> DNA  
 <213> Homo sapiens

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240
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 <213> Homo sapiens

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35     40     45
Pro Gln Gly Leu Gln Lys Gly Gly Gly Glu Ala Pro Val Leu Leu Leu
50     55     60
Gln Glu Leu Ala Gln Asp Ala Val Ala Pro Ala Val Ala Arg Arg Ser

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65					70					75				80
Ala	Pro	Ala	Pro	Cys	Ser	Asn	Arg	Leu	Arg	Ser	Pro	Ser	Pro	Pro
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Leu	Pro	Pro	Asp	Arg	Pro	Arg	Pro	Pro	Ala	Arg	Arg	His	Ser	Phe
			100					105					110	
Gly	Pro	Ala	Leu	Arg	Ser	Gly	Pro	Pro	Leu	Pro	Pro	Pro	Pro	Arg
		115					120				125			
Pro	Leu	Leu	Arg	Pro	Pro	Val	Ala	Ala	Ala	Leu	Pro	Pro	Gln	Pro
	130					135					140			
Pro	Ser	Leu	Pro	Ala	Ser	Arg	Ala	His	Ser	Cys	Pro	Gly	Arg	Pro
145					150					155				160
Leu	Gly	Gly	Val	Glu	Gln	Pro	Leu	Glu	Val	Leu	Gly	Asp	Ala	
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&lt;210&gt; 2897

&lt;211&gt; 3184

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2897

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 <211> 933  
 <212> PRT  
 <213> Homo sapiens

<400> 2898  
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 Asn Glu Cys Val Gln Cys Glu Phe Asn Phe Ile Asn Thr Gly Lys Phe  
 35 40 45  
 Thr Phe Ser Phe Gln Ala Gln Leu Cys Gly Ser Lys Thr Leu Leu Gln  
 50 55 60  
 Tyr Leu Glu Phe Ser Pro Ile Asp Ser Thr Val Asp Val Gly Gln Ser  
 65 70 75 80  
 Val His Ala Thr Leu Ser Phe Gln Pro Leu Lys Lys Cys Val Leu Thr  
 85 90 95  
 Asp Leu Glu Leu Ile Ile Lys Ile Ser His Gly Pro Thr Phe Met Cys  
 100 105 110  
 Asn Ile Ser Gly Cys Ala Val Ser Pro Ala Ile His Phe Ser Phe Thr  
 115 120 125  
 Ser Tyr Asn Phe Gly Thr Cys Phe Ile Tyr Gln Ala Gly Met Pro Pro  
 130 135 140  
 Tyr Lys Gln Thr Leu Val Ile Thr Asn Lys Glu Glu Thr Pro Met Ser  
 145 150 155 160  
 Ile Asp Cys Leu Tyr Thr Asn Thr Thr His Leu Glu Val Asn Ser Arg  
 165 170 175  
 Val Asp Val Val Lys Pro Gly Asn Thr Leu Glu Ile Pro Ile Thr Phe  
 180 185 190  
 Tyr Pro Arg Glu Ser Ile Asn Tyr Gln Glu Leu Ile Pro Phe Glu Ile  
 195 200 205  
 Asn Gly Leu Ser Gln Gln Thr Val Glu Ile Lys Gly Lys Gly Thr Glu

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Ala Val Leu Pro Gly Gln Val Val Lys Arg Thr Val Ser Ile Met Asn
      245              250              255
Asn Ser Leu Ala Gln Leu Thr Phe Asn Gln Ser Ile Leu Phe Thr Ile
      260              265              270
Pro Glu Leu Gln Glu Pro Lys Val Leu Thr Leu Ala Pro Phe His Asn
      275              280              285
Ile Thr Leu Lys Pro Lys Glu Val Cys Lys Leu Glu Val Ile Phe Ala
      290              295              300
Pro Lys Lys Arg Val Pro Pro Phe Ser Glu Glu Val Phe Met Glu Cys
305              310              315              320
Met Gly Leu Leu Arg Pro Leu Phe Leu Leu Ser Gly Cys Cys Gln Ala
      325              330              335
Leu Glu Ile Ser Leu Asp Gln Glu His Ile Pro Phe Gly Pro Val Val
      340              345              350
Tyr Gln Thr Gln Ala Thr Arg Arg Ile Leu Met Leu Asn Thr Gly Asp
      355              360              365
Val Gly Ala Arg Phe Lys Trp Asp Ile Lys Lys Phe Glu Pro His Phe
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Ser Ile Ser Pro Glu Glu Gly Tyr Ile Thr Ser Gly Met Glu Val Ser
385              390              395              400
Phe Glu Val Thr Tyr His Pro Thr Glu Val Gly Lys Glu Ser Leu Cys
      405              410              415
Lys Asn Ile Leu Cys Tyr Ile Gln Gly Gly Ser Pro Leu Ser Leu Thr
      420              425              430
Leu Ser Gly Val Cys Val Gly Pro Pro Ala Val Lys Glu Val Val Asn
      435              440              445
Phe Thr Cys Gln Val Arg Ser Lys His Thr Gln Thr Ile Leu Leu Ser
      450              455              460
Asn Arg Thr Asn Gln Thr Trp Asn Leu His Pro Ile Phe Glu Gly Glu
465              470              475              480
His Trp Glu Gly Pro Glu Phe Ile Thr Leu Glu Ala His Gln Gln Asn
      485              490              495
Lys Pro Tyr Glu Ile Thr Tyr Arg Pro Arg Thr Met Asn Leu Glu Asn
      500              505              510
Arg Lys His Gln Gly Thr Leu Phe Phe Pro Leu Pro Asp Gly Thr Gly
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Trp Leu Tyr Ala Leu His Gly Thr Ser Glu Leu Pro Lys Ala Val Ala
      530              535              540
Asn Ile Tyr Arg Glu Val Pro Cys Lys Thr Pro Tyr Thr Glu Leu Leu
545              550              555              560
Pro Ile Thr Asn Trp Leu Asn Lys Pro Gln Arg Phe Arg Val Ile Val
      565              570              575
Glu Ile Leu Lys Pro Glu Lys Pro Asp Leu Ser Ile Thr Met Lys Gly
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Leu Asp Tyr Ile Asp Val Leu Ser Gly Ser Lys Lys Asp Tyr Lys Leu
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Asn Phe Phe Ser His Lys Glu Gly Thr Tyr Ala Ala Lys Val Ile Phe
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Arg Asn Glu Val Thr Asn Glu Phe Leu Tyr Tyr Asn Val Ser Phe Arg
625              630              635              640
Val Ile Pro Ser Gly Ile Ile Lys Thr Ile Glu Met Val Thr Pro Val

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 675 680 685  
 Ser Gln Phe Val Val Pro Ala Asn Ser Glu Gly Thr Phe Ser Phe Glu  
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 Leu Ser Ser Leu Ala Gly Gly Glu Tyr Ile Ile Pro Leu Phe Gly Met  
 820 825 830  
 Ala Leu Pro Pro Lys Pro Gln Gly Pro Phe Ser Ile Arg Ala Gly Tyr  
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 Ser Ile Ile Ile Pro Phe Lys Asn Val Phe Tyr His Met Val Thr Phe  
 850 855 860  
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 865 870 875 880  
 Val Arg Pro Lys Lys Ile Asn Asn Ile Thr Val Ser Phe Glu Gly Asn  
 885 890 895  
 Pro Ser Gly Ser Lys Thr Pro Ile Thr Thr Lys Leu Thr Val Ser Cys  
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 Pro Pro Gly Glu Gly Ser Glu Thr Gly Val Lys Trp Val Tyr Tyr Leu  
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 Lys Gly Ile Thr Leu  
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&lt;210&gt; 2899

&lt;211&gt; 876

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2899

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<210> 2900  
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 35 40 45  
 Tyr Lys Asn Gln Glu Leu Arg Ile Lys Phe Pro Asp Asn Pro Glu Lys  
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 Phe Met Glu Ser Glu Leu Asp Leu Asn Asp Ile Ile Gln Glu Met His  
 65 70 75 80  
 Val Val Ala Thr Met Pro Asp Leu Tyr His Leu Leu Val Glu Leu Asn  
 85 90 95  
 Ala Val Gln Ser Leu Leu Gly Leu Leu Gly His Asp Asn Thr Asp Val  
 100 105 110  
 Ser Ile Ala Val Val Asp Leu Leu Gln Glu Leu Thr Asp Ile Asp Thr  
 115 120 125  
 Leu His Glu Ser Glu Glu Gly Ala Glu Val Leu Ile Asp Ala Leu Val  
 130 135 140  
 Asp Gly Gln Val Val Ala Leu Leu Val Gln Asn Leu Glu Arg Leu Asp  
 145 150 155 160  
 Glu Ser Val Lys Glu Ala Asp Gly Val His Asn Thr Leu Ala Ile  
 165 170 175  
 Val Glu Asn Met Ala Glu Phe Arg Pro Glu Met Cys Thr  
 180 185

<210> 2901  
 <211> 756

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2901

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 60  
 ccgcccgtcc agagcctgaa gggcgaggat gctgaggaat ccttggagga ggaggaggcg  
 120  
 ctggaccctc tgggcattat gcgctccaag aagcccaaga aacatcccaa agtggccgtg  
 180  
 aaagccaagc cctcgccccg gctcaccatc tttgacgagg aggtggaccc tgatgagggg  
 240  
 ctctttggcc cgggcaggaa gctgtctcca caggaccctt cggaggacgt gtcattccatg  
 300  
 gacccccctga agctatttga tgatcctgac ctggcgggg ccatccccct gggtgactcc  
 360  
 ctctgtctgc cggccgcctg tgagagtgga gggcccacac ccagcctcag ccacagggac  
 420  
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 480  
 tgtcctggac agagccaagg gcccggtca ttgccagtc tcagccccag cctcctctga  
 540  
 ggggaggacc ccaggcctgt gaaaagtaga agcctgtggg tgcacattgg gtgagaggcg  
 600  
 gtgaaggggg ctgaggggga ggnaantcgc ccagggctgc tcagctagtt ccagaaagag  
 660  
 agaactttgt gtgcacaacc agtctttctt ttcacaatca tattttaaca gtttatgtaa  
 720  
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 756

&lt;210&gt; 2902

&lt;211&gt; 158

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2902

Thr	Arg	Arg	Arg	Gly	Ala	Phe	Asp	Phe	Phe	Glu	Lys	Gln	Asp	Gln	Val
1				5					10					15	
Ala	Glu	Glu	Gly	Pro	Pro	Val	Gln	Ser	Leu	Lys	Gly	Glu	Asp	Ala	Glu
			20					25					30		
Glu	Ser	Leu	Glu	Glu	Glu	Ala	Leu	Asp	Pro	Leu	Gly	Ile	Met	Arg	
		35				40					45				
Ser	Lys	Lys	Pro	Lys	Lys	His	Pro	Lys	Val	Ala	Val	Lys	Ala	Lys	Pro
		50				55				60					
Ser	Pro	Arg	Leu	Thr	Ile	Phe	Asp	Glu	Glu	Val	Asp	Pro	Asp	Glu	Gly
65					70					75				80	
Leu	Phe	Gly	Pro	Gly	Arg	Lys	Leu	Ser	Pro	Gln	Asp	Pro	Ser	Glu	Asp
			85					90					95		
Val	Ser	Ser	Met	Asp	Pro	Leu	Lys	Leu	Phe	Asp	Asp	Pro	Asp	Leu	Gly
			100					105					110		
Gly	Ala	Ile	Pro	Leu	Gly	Asp	Ser	Leu	Leu	Leu	Pro	Ala	Ala	Cys	Glu
		115				120					125				
Ser	Gly	Gly	Pro	Thr	Pro	Ser	Leu	Ser	His	Arg	Asp	Ala	Ser	Lys	Glu

130 135 140  
 Leu Phe Arg Tyr His Leu Ser Pro Ala Ala Leu Gly Gln Leu  
 145 150 155

<210> 2903

<211> 542

<212> DNA

<213> Homo sapiens

<400> 2903

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 120  
 gactcacaga acctcagtgc ctacaacacc cggctcttca aagaggtcga tggagaaggg  
 180  
 aagccctact acgagggtgcg gctggcttct gtgcttggtc cagagccttc cctggactct  
 240  
 gaggtgactt ccaagctgaa gagctatgaa ttccggggaa gccctttcca ggtgacccgg  
 300  
 ggggactacg cgcccatcct ccagaagggtg gtggagcagc tggagaaagc caaggcctat  
 360  
 gcagccaaca gccaccaggg gcagatgctg gccagtata tagagagctt caccagggc  
 420  
 tccatcgagg cccacaagag gggctccgc ttctggatcc aggacaaagg ccccatcgt  
 480  
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 540  
 gt  
 542

<210> 2904

<211> 180

<212> PRT

<213> Homo sapiens

<400> 2904

Lys Leu Met Phe Ser Leu Tyr Pro Arg Leu Arg His Leu Gly Leu Gly  
 1 5 10 15  
 Lys Glu Gly Ile Thr Thr Tyr Phe Ser Gly Asn Cys Thr Met Glu Asp  
 20 25 30  
 Ala Lys Leu Ala Gln Asp Phe Leu Asp Ser Gln Asn Leu Ser Ala Tyr  
 35 40 45  
 Asn Thr Arg Leu Phe Lys Glu Val Asp Gly Glu Gly Lys Pro Tyr Tyr  
 50 55 60  
 Glu Val Arg Leu Ala Ser Val Leu Gly Ser Glu Pro Ser Leu Asp Ser  
 65 70 75 80  
 Glu Val Thr Ser Lys Leu Lys Ser Tyr Glu Phe Arg Gly Ser Pro Phe  
 85 90 95  
 Gln Val Thr Arg Gly Asp Tyr Ala Pro Ile Leu Gln Lys Val Val Glu  
 100 105 110  
 Gln Leu Glu Lys Ala Lys Ala Tyr Ala Ala Asn Ser His Gln Gly Gln  
 115 120 125  
 Met Leu Ala Gln Tyr Ile Glu Ser Phe Thr Gln Gly Ser Ile Glu Ala

130                      135                      140  
 His Lys Arg Gly Ser Arg Phe Trp Ile Gln Asp Lys Gly Pro His Arg  
 145                      150                      155                      160  
 Gly Glu Val Arg Arg Gln Leu His Pro Thr Cys Pro Leu Leu Pro Ala  
                     165                      170                      175  
 Pro Pro Ser Arg  
                     180

<210> 2905  
 <211> 814  
 <212> DNA  
 <213> Homo sapiens

<400> 2905  
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 60  
 gtcacaagat ccttcttctg tattacaaat tctgccactt tgtttcagaa ctgggtatca  
 120  
 ggattctctc tctgcccagg tttctgctgt cccccaaaa gaaagacatg tagctgggca  
 180  
 tggtggtaca catctgtggt ccagttact caggaggctg aggcaggagg attgcttgag  
 240  
 ccaggtgtt caaggttgca gtgggctgtg aatgctctac ttcactccag cctgagcaac  
 300  
 agagcaagac cccggccctc ttctcgactt tctatccctc ctctcaaca cccttctctt  
 360  
 ctggaaatgg gcttcggggg ggtaaccaa gccaggga acttgcggtg ccagcatct  
 420  
 tccgtccgct gcaggaggag cacacgccc cggcccgggt cagcaagacg cgagaaagcg  
 480  
 gccacgccgg gcgtccggga gctgaggctg gagggcgctt ggcaggcagg gcggggccca  
 540  
 ggcgccggga gtgcttatga ccggcgctgg ggggaacttc tggacgtcaa ggggccacta  
 600  
 taaagcggca cagtcttgag ccttcgctct tcacctaagt cagtgagcgc ccttcgcaaa  
 660  
 gcctctgtgg aggtaacat tgggggttcg cctccaaatc caggaatgca cctcaaaaat  
 720  
 gctcctacac cgtaagaccg tgccttcaa tgcaaagggg actgtgcggc gaggcaccga  
 780  
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 814

<210> 2906  
 <211> 200  
 <212> PRT  
 <213> Homo sapiens

<400> 2906  
 Phe Ser Tyr Pro Ser Phe Val Tyr Leu Gly Thr Phe Thr Leu Val Asp  
 1                      5                      10                      15  
 Asn Arg Ile Pro Val Thr Arg Ser Phe Phe Cys Ile Thr Asn Ser Ala  
                     20                      25                      30  
 Thr Leu Phe Gln Asn Trp Val Ser Gly Phe Leu Leu Cys Pro Gly Phe

```

      35          40          45
Cys Cys Pro Pro Lys Arg Lys Thr Cys Ser Trp Ala Trp Trp Tyr Thr
  50          55          60
Ser Val Val Pro Val Thr Gln Glu Ala Glu Ala Gly Gly Leu Leu Glu
  65          70          75          80
Pro Arg Cys Ser Arg Leu Gln Trp Ala Val Asn Ala Leu Leu His Ser
      85          90          95
Ser Leu Ser Asn Arg Ala Arg Pro Arg Pro Ser Ser Arg Leu Ser Ile
      100          105          110
Pro Pro Pro Gln His Pro Phe Leu Leu Glu Met Gly Phe Gly Val Val
      115          120          125
Asn Gln Ala Gln Gly Asn Leu Arg Gly Pro Ala Ser Ser Val Arg Cys
      130          135          140
Arg Arg Ser Thr Arg Pro Arg Pro Gly Ser Ala Arg Arg Glu Lys Ala
      145          150          155          160
Ala Thr Pro Gly Val Arg Glu Leu Arg Leu Glu Gly Ala Trp Gln Ala
      165          170          175
Gly Arg Gly Pro Gly Gly Gly Ser Ala Tyr Asp Arg Arg Trp Gly Glu
      180          185          190
Leu Leu Asp Val Lys Gly Pro Leu
      195          200

```

&lt;210&gt; 2907

&lt;211&gt; 379

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2907

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ntgagaccct gtctcaaagt aaaaaattct gaaaaatgct atgaccgtga.gtgaccggcc
  60
atcagcaggc tgtgatctgc cgaaactcat gacagcgagc ctcaatggct gggctcttaag
  120
aaacagcatc ttcaactttc ccaggtgct ttccaatttc caaactgtc cccaagatta
  180
caaaggcaaa ggaattcttc ccttaatgtt ggacggctct gagactgtc caccctgggc
  240
tcattacact gggaccagct ttaagcttcc ctgttcaacg cggagagctc cacagcccag
  300
gacgacagag cagatgatgg cacgacgccc tcaaaacca gacaggcctt cttggcttgc
  360
cctggccgat gccaccggt
  379

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&lt;210&gt; 2908

&lt;211&gt; 113

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2908

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Met Thr Val Ser Asp Arg Pro Ser Ala Gly Cys Asp Leu Pro Lys Leu
  1          5          10          15
Met Thr Ala Ser Leu Asn Gly Trp Val Leu Arg Asn Ser Ile Phe Thr
      20          25          30
Phe Pro Arg Leu Leu Ser Asn Phe Gln His Cys Pro Gln Asp Tyr Lys

```

[illegible]

<210> 2909

<211> 2420

<212> DNA

<213> Homo sapiens

<400> 2909

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400> 2909
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gctttaaaaa aaaaaaaaaa gacacatttt ttgaaagata ttcttagtgt tgtgacctgg
120
cattggggccc ctgtgagcgg gacggtggct gagaccgcct gctgtggcct tgcgagttct
180
ctgcactcac tggcaggggt ttgggtggga acggggaagc tttggcatgg ttctgtccag
240
ttgcttataa tcaagaataa tgagttttga ggtttacaaa gagcagaagt aacatttata
300
cggctggcat ttgacaaaag attgctgata atatactcat tccaggaagt gtaaaaatgc
360
tttaaaggaa tgataatttg tacttactgt ttatggggac tagatatatt agaattatag
420
catcattatg gggacatagt gtttccttat aaattcagaa attctctggg tgatgtaaaa
480
tcatacttcc tgggttttact taattagtaa agaaataaat aaattagagt aacatttagt
540
caggtagagt tactcctttt tccccttctt tattaataaa ttttattttt agcacaatca
600
tttaccctaa aagagagttt gagaatgttc gagaatctct accactcggg aaccatgctg
660
gctgttatat cagaaaaatc cataaacata cacagcagcg agctgttttc acaagacttc
720
ctgctaataa acacaaactt ttctcctcca ctccagatggg agcctcagat gccaaaacgc
780
agatgtgcc aactaactata ggctcgttgc taagcagaga aacctatcaa gtttgtccag
840
caaattcgat tgtacagtgg gatggcgtct gctctgcggc cttggacagg gagccactgg
900
tctgtgctgc tgtcccctga ggcaggctga agctgggtggc ccttagaggg cagggtaaaat
960
ggttctcatg ggttagaaca taagggtttt gagaaaaaat gcaaaaggtc tcattgaaat
1020
tggaggccta tgtgaatctg ttacatgga ggcatactga gatctcgttc tgtgcttagg
1080

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tgaactgcag gtctcaegct ggctgcatga cttggtgccc cctggctggc tgagccactg  
1140  
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1200  
aatagtgaga gagaaaatcc caaacatttg agacagggtt caaaagcacc cagacgcctt  
1260  
ctgtctcttt cccagttccc atctggctag ggactgtgaa tcagaattca gaatctgtgc  
1320  
tgccctgagg ggacaggcac ccaaagcaa taaataacac caagctcagg acccagccac  
1380  
tgaccttctt ccaccactgc tgcgggttat tctctgatgg gaactgaagg atccaaggga  
1440  
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1560  
gggaacgcaa tgtgttcaca caaatgcacg acaattgtac atcagcatct ttacaatatt  
1620  
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1680  
cgcccaccag tctctgcag tttctccacc ggagaacact tggggagctg tcacaaggcc  
1740  
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1800  
ggggcagtc tcaactggaat caggggtcaa gagcgccagg tctgcctgtg tctgggtctc  
1860  
atcggcaggc tagtgaaca acgtgaatta aaactgtgca tattcgcatt agaaaactgg  
1920  
agctggggat ggctccctga gctggggacc tagaagacgc tgctgacaga tgggcccctt  
1980  
catggtgggg cccattcctg aggtaacgtg cagccctgag gctggtccga acgggaggag  
2040  
acttctccag cagcccaggt gccagtccac acagacagga ctggaagccc ctgggcagca  
2100  
ggtcaggtga cccggggagt gcagcctgag cccccaacgg cagcaaactg gaaggctctc  
2160  
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2220  
gcacacatcc ctgcatctgt cccgagagcc ccagccctgc aggcattctg gcctgaatgc  
2280  
caggcagctg gtccaccctg cagccatgct gcacgtctga ctgagaactg agcaccagat  
2340  
aaagaagcat tggctcctgt cagcctctct gacttttgca gttagggtg catccattta  
2400  
aatatgtaga aaaatagcca  
2420

&lt;210&gt; 2910

&lt;211&gt; 153

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2910

Met Gly Thr Glu Gly Ser Lys Gly Gly Ile Arg Ser Ala Pro Lys Pro



```

      1           5           10           15
Pro Cys Thr Thr Ser Asn Ala Gly Val Trp Leu Leu Leu Leu His Arg
      20           25           30
Thr Glu Pro Pro Val Phe Cys Leu Arg Ala Ser Phe Met Ala Trp Thr
      35           40           45
Gly Asn Ala Met Cys Ser His Lys Cys Thr Thr Ile Val His Gln His
      50           55           60
Leu Tyr Asn Ile Lys Gly Val Ile Tyr Lys Ser Thr Ala Ile Val His
      65           70           75           80
Arg Met Val Met Ala Gly Glu Pro Arg Pro Pro Val Leu Cys Ser Phe
      85           90           95
Ser Thr Gly Glu His Leu Gly Ser Cys His Lys Ala Arg Gly Gly Pro
      100          105          110
Ser Leu Gly Leu Ser Trp Gly Arg Gln Gln Val Cys Lys Asp Ser Ser
      115          120          125
Gly Pro Val Leu Thr Gly Ile Arg Gly Gln Glu Arg Gln Val Cys Leu
      130          135          140
Cys Leu Gly Leu Ile Gly Arg Leu Val
      145          150

```

&lt;210&gt; 2911

&lt;211&gt; 1327

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2911

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120
gctgcggagc ccgggaagcg gagcgagggc gggaagaccc ccgtggcccg gagcagcgga
180
ggcgggggct gggcagaccc ccgaacgtgc ctgagcctgc tgctgctggg gacgtgcctg
240
ggcctggcct ggtttgtatt tcagcagtca gaaaaatttg caaaggtgga aaaccaatac
300
cagttactga aactagaaac caatgaattc caacaacttc aaagtaaaat cagtttaatt
360
tcagaaaagt ggcagaaatc tgaagctatc atggaacaat tgaagtcttt tcaaataatt
420
gctcatctaa agcgtctaca ggaagaaatt aatgaggtaa aaacttggtc caataggata
480
actgaaaaac aggatatact gaacaacagt ctgacgacgc tttctcaaga cattacaaaa
540
gtagaccaa gtacaacttc catggcaaaa gatgttggtc tcaagattac aagtgtaaaa
600
acagatatac gacggatttc aggttttagta actgatgtaa tatcattgac agattctgtg
660
caagaactag aaaataaaat agagaaagta gaaaaaata cagtaaaaaa tataggtgat
720
cttctttcaa gcagtattga tcgaacagca acgctccgaa agacagcatc tgaaaattca
780
caaagaatta actctgttaa gaagacgcta accgaactaa agagtgactt cgacaaacat
840

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acagatagat ttctaagctt agaaggtgac agagccaaag ttctgaagac agtgactttt  
 900  
 gcaaatgac taaaaccaa ggtgtataat ctaaagaagg acttttcccg tttagaacca  
 960  
 ttagtaaatg atttaacact acgcattggg agattgggta ccgacttact acaaagagag  
 1020  
 aaagaaattg ctttcttaag tgaaaaaata tctaatttaa caatagtcca agctgagatt  
 1080  
 aaggatatta aagatgaaat agcacacatt tcagatatga attagtttga cattattgag  
 1140  
 attagactaa ggtaattttt ttaatgggac ctctcatgag aagactggta aatcaaaaat  
 1200  
 aatgatattt tggagcaaaa gtcattttat atttaatcct attttgtaca gtaaaaaata  
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 1320  
 aaaaaaa  
 1327

<210> 2912

<211> 350

<212> PRT

<213> Homo sapiens

<400> 2912

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Ala	Ala	Glu	Pro	Gly	Lys	Arg	Ser	Glu	Gly	Gly	Lys	Thr	Pro	Val	Ala
			20					25					30		
Arg	Ser	Ser	Gly	Gly	Gly	Gly	Trp	Ala	Asp	Pro	Arg	Thr	Cys	Leu	Ser
			35				40					45			
Leu	Leu	Ser	Leu	Gly	Thr	Cys	Leu	Gly	Leu	Ala	Trp	Phe	Val	Phe	Gln
			50			55					60				
Gln	Ser	Glu	Lys	Phe	Ala	Lys	Val	Glu	Asn	Gln	Tyr	Gln	Leu	Leu	Lys
65					70					75					80
Leu	Glu	Thr	Asn	Glu	Phe	Gln	Gln	Leu	Gln	Ser	Lys	Ile	Ser	Leu	Ile
			85						90					95	
Ser	Glu	Lys	Trp	Gln	Lys	Ser	Glu	Ala	Ile	Met	Glu	Gln	Leu	Lys	Ser
			100					105					110		
Phe	Gln	Ile	Ile	Ala	His	Leu	Lys	Arg	Leu	Gln	Glu	Glu	Ile	Asn	Glu
			115				120					125			
Val	Lys	Thr	Trp	Ser	Asn	Arg	Ile	Thr	Glu	Lys	Gln	Asp	Ile	Leu	Asn
			130			135					140				
Asn	Ser	Leu	Thr	Thr	Leu	Ser	Gln	Asp	Ile	Thr	Lys	Val	Asp	Gln	Ser
145					150					155				160	
Thr	Thr	Ser	Met	Ala	Lys	Asp	Val	Gly	Leu	Lys	Ile	Thr	Ser	Val	Lys
			165					170					175		
Thr	Asp	Ile	Arg	Arg	Ile	Ser	Gly	Leu	Val	Thr	Asp	Val	Ile	Ser	Leu
			180				185						190		
Thr	Asp	Ser	Val	Gln	Glu	Leu	Glu	Asn	Lys	Ile	Glu	Lys	Val	Glu	Lys
			195			200					205				
Asn	Thr	Val	Lys	Asn	Ile	Gly	Asp	Leu	Leu	Ser	Ser	Ser	Ile	Asp	Arg
			210			215					220				
Thr	Ala	Thr	Leu	Arg	Lys	Thr	Ala	Ser	Glu	Asn	Ser	Gln	Arg	Ile	Asn

```

225          230          235          240
Ser Val Lys Lys Thr Leu Thr Glu Leu Lys Ser Asp Phe Asp Lys His
          245          250          255
Thr Asp Arg Phe Leu Ser Leu Glu Gly Asp Arg Ala Lys Val Leu Lys
          260          265          270
Thr Val Thr Phe Ala Asn Asp Leu Lys Pro Lys Val Tyr Asn Leu Lys
          275          280          285
Lys Asp Phe Ser Arg Leu Glu Pro Leu Val Asn Asp Leu Thr Leu Arg
          290          295          300
Ile Gly Arg Leu Val Thr Asp Leu Leu Gln Arg Glu Lys Glu Ile Ala
305          310          315          320
Phe Leu Ser Glu Lys Ile Ser Asn Leu Thr Ile Val Gln Ala Glu Ile
          325          330          335
Lys Asp Ile Lys Asp Glu Ile Ala His Ile Ser Asp Met Asn
          340          345          350

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<210> 2913  
 <211> 361  
 <212> DNA  
 <213> Homo sapiens

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<400> 2913
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120
cggcgcatgg acgtcttcac tgaggctgag ttgagggtga agtttcttca ggcccagat
180
gcttggtccc ggtccatcct gactgccatt cctaattgatg atccctatatt ccatattaca
240
aaaaccatcg agggcctccc gtgtccatct ctttgatata atcaccagat accggggccat
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360
g
361

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<210> 2914  
 <211> 112  
 <212> PRT  
 <213> Homo sapiens

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<400> 2914
Met Ala Gly Gly Ser Ser Gly Ser Ser Ser Glu Lys Met Ala Arg Tyr
1          5          10          15
Trp Val Met Ile Ser Lys Arg Trp Thr Arg Glu Ala Leu Asp Gly Phe
          20          25          30
Cys Asn Met Glu Ile Gly Ile Ile Ile Arg Asn Gly Ser Gln Asp Gly
          35          40          45
Pro Glu Pro Ser Ile Ser Gly Leu Lys Lys Leu His Pro Gln Leu Ser
          50          55          60
Leu Ser Glu Asp Val His Ala Pro Gln Val Ala Asn Asp Thr Glu Ala
65          70          75          80
Gly Arg Lys Leu Asp Val Gly Pro Gln Leu Leu Asp Gln Leu Ala Gln

```

	85		90		95										
His	Gln	Leu	His	Gly	Leu	Ala	His	Phe	Val	His	Asp	Ala	Leu	Asp	Asp
	100						105						110		

&lt;210&gt; 2915

&lt;211&gt; 1782

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2915

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60
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 <211> 519  
 <212> PRT  
 <213> Homo sapiens

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 Leu Leu Arg Thr Ser Leu His Arg Glu Arg Glu Gln Ala Gln Gln Leu  
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 Glu Ile Ala Lys Glu Glu Lys Lys His Glu Gln Met Ile Lys Glu Tyr  
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 Lys Asp Leu Thr Cys Met Val Lys Glu Gln Lys Thr Lys Leu Ala Glu  
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 Val Ser Lys Leu Lys Gln Glu Thr Ala Ala Asn Leu Gln Asn Gln Ile  
 195 200 205  
 Asn Thr Leu Glu Ile Leu Ile Glu Asp Asp Lys Gln Lys Ser Ile Gln  
 210 215 220  
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Ile Ile Asp Asp Gln Thr Glu Thr Ile Arg Lys Leu Lys Asp Cys Leu
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Gln Glu Lys Asp Glu His Ile Lys Arg Leu Gln Glu Lys Ile Thr Glu
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Ile Glu Lys Cys Thr Gln Glu Gln Leu Asp Glu Lys Ser Ser Gln Leu
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Asp Glu Val Leu Glu Lys Leu Glu Arg His Asn Glu Arg Lys Glu Lys
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Leu Cys His Leu Glu Thr Gln Val Lys Glu Val Lys Glu Lys Phe Glu
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Asn Lys Glu Lys Lys Leu Lys Ala Glu Arg Asp Lys Ser Ile Glu Leu
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Leu Ala Asn Glu Lys Gln Lys Cys Ile Asp Ser Ala Asn Leu Lys Val
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His Gln Ile Glu Lys Glu Met Arg Glu Leu Leu Glu Glu Thr Cys Lys
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&lt;210&gt; 2917

&lt;211&gt; 2636

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2917

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 <211> 509  
 <212> PRT  
 <213> Homo sapiens

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 35 40 45  
 Ala Val Asp Leu Ser Thr Xaa Phe Ala Gln Ile Ser His Thr Ala Arg  
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 Phe Val Glu Asp Thr Cys Arg Leu Ala Leu Val Tyr Cys Ser Leu Ile  
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 100 105 110  
 Ala Ala Asn Met Leu Cys Val Val Val Asn Asp Met Glu Gln Leu Arg  
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 145 150 155 160  
 His Ala Gln Leu Gln Ser Ala Leu Ala Gly Leu Gly His Glu Ile Arg  
 165 170 175  
 Thr Gly Val Arg Thr Leu Ala Glu Gln Leu Glu Val Gly Ile Ala Lys  
 180 185 190  
 His Ile Gln Lys Leu Val Gly Val Arg Glu Ser Val Leu Pro Glu Asp  
 195 200 205  
 Ala Ile Leu Pro Leu Met Lys Phe Leu Glu Val Glu Leu Cys Tyr Met



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225	230	235
Trp Thr His Thr Leu Thr Val Leu Val Glu Ala Ala Ala Ser Gln Arg		240
	245	250
Ser Ser Ser Leu Ala Ser Asn Arg Leu Lys Ile Ala Leu Gln Asn Leu		255
	260	265
Glu Ile Cys Phe His Ala Glu Gly Cys Gly Leu Pro Pro Lys Ala Leu		270
	275	280
His Thr Ala Thr Phe Gln Ala Leu Gln Arg Asp Leu Glu Leu Gln Ala		285
	290	295
Ala Ser Ser Arg Glu Leu Ile Arg Lys Tyr Phe Cys Ser Arg Ile Gln		300
305	310	315
Gln Gln Ala Glu Thr Thr Ser Glu Glu Leu Gly Ala Val Thr Val Lys		320
	325	330
Ala Ser Tyr Arg Ala Ser Glu Gln Lys Leu Arg Val Glu Leu Leu Ser		335
	340	345
Ala Ser Ser Leu Leu Pro Leu Asp Ser Asn Gly Ser Ser Asp Pro Phe		350
	355	360
Val Gln Leu Thr Leu Glu Pro Arg His Glu Phe Pro Glu Leu Ala Ala		365
	370	375
Arg Glu Thr Gln Lys His Lys Lys Asp Leu His Pro Leu Phe Asp Glu		380
385	390	395
Thr Phe Glu Phe Leu Val Pro Ala Glu Pro Cys Arg Lys Ala Gly Ala		400
	405	410
Cys Leu Leu Leu Thr Val Leu Asp Tyr Asp Thr Leu Gly Ala Asp Asp		415
	420	425
Leu Glu Gly Glu Ala Phe Leu Pro Leu Arg Glu Val Pro Gly Leu Ser		430
	435	440
Gly Ser Glu Glu Pro Gly Glu Val Pro Gln Thr Arg Leu Pro Leu Thr		445
	450	455
Tyr Pro Ala Pro Asn Gly Asp Pro Ile Leu Gln Leu Leu Glu Gly Arg		460
465	470	475
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Ala Lys Gln Ala Ser Gln His Ala Leu Arg Pro Ala Pro		495
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 <211> 455  
 <212> DNA  
 <213> Homo sapiens

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<210> 2920  
 <211> 143  
 <212> PRT  
 <213> Homo sapiens

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 Arg Gln Val Ser Ser Leu Leu Thr Asn His Leu Ala Arg Ala Thr Glu  
 35 40 45  
 Cys Cys Gly Asn Gln Ala Ala Gly Asn Asp Ala Leu Gln Asp Val Leu  
 50 55 60  
 Ser Leu Leu Asn Asp Leu Ser Arg Ser His Ile Gly Lys Ala Ile Leu  
 65 70 75 80  
 Ser Gln Pro Ala Cys Val Ser Lys Leu Leu Ser Leu Leu Leu Asp Gln  
 85 90 95  
 Arg Pro Ser Pro Lys Leu Val Leu Ile Ile Leu Gln Leu Cys Arg Ala  
 100 105 110  
 Ala Leu Pro Leu Met Ser Val Glu Asp Cys Gly Asn Val Glu Leu Pro  
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<210> 2921  
 <211> 1855  
 <212> DNA  
 <213> Homo sapiens

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1855

&lt;210&gt; 2922

&lt;211&gt; 452

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2922

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Lys Ile Val Arg Ala Gln Gly Gln Tyr Met Tyr Asp Glu Gln Gly Ala			
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Glu Tyr Ile Asp Cys Ile Ser Asn Val Ala His Val Gly His Cys His			
50	55	60	
Pro Leu Val Val Gln Ala Ala His Glu Gln Asn Gln Val Leu Asn Thr			
65	70	75	80
Asn Ser Arg Tyr Leu His Asp Asn Ile Val Asp Tyr Ala Gln Arg Leu			
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Ser Glu Thr Leu Pro Glu Gln Leu Cys Val Phe Tyr Phe Leu Asn Ser			
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Gly Ser Glu Ala Asn Asp Leu Ala Leu Arg Leu Ala Arg His Tyr Thr			
115	120	125	
Gly His Gln Asp Val Val Val Leu Asp His Ala Tyr His Gly His Leu			
130	135	140	
Ser Ser Leu Ile Asp Ile Ser Pro Tyr Lys Phe Arg Asn Leu Asp Gly			
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Gln Lys Glu Trp Val His Val Ala Pro Leu Pro Asp Thr Tyr Arg Gly			
165	170	175	
Pro Tyr Arg Xaa Arg Thr Thr Pro Thr Gln Leu Trp Xaa Tyr Ala Asn			
180	185	190	
Glu Val Lys Arg Val Val Ser Ser Ala Gln Glu Lys Gly Arg Lys Ile			
195	200	205	
Ala Ala Phe Phe Ala Glu Ser Leu Pro Ser Val Gly Gly Gln Ile Ile			
210	215	220	
Pro Pro Ala Gly Tyr Phe Ser Gln Val Ala Glu His Ile Arg Lys Ala			
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Gly Gly Val Phe Val Ala Asp Glu Ile Gln Val Gly Phe Gly Arg Val			
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Gly Lys His Phe Trp Ala Phe Gln Leu Gln Gly Lys Asp Phe Val Pro			
260	265	270	
Asp Ile Val Thr Met Gly Lys Ser Ile Gly Asn Gly His Pro Val Ala			
275	280	285	
Cys Val Ala Ala Thr Gln Pro Val Ala Arg Ala Phe Glu Ala Thr Gly			
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305	310	315	320
Gly Leu Ala Val Leu Asn Val Leu Glu Lys Glu Gln Leu Gln Asp His			
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Ala Thr Ser Val Gly Ser Phe Leu Met Gln Leu Leu Trp Gln Gln Lys			
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355	360	365	
Gly Val Asp Leu Ile Lys Asp Glu Ala Thr Arg Thr Pro Ala Thr Glu			
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Glu Ala Xaa Val Tyr Leu Val Ser Arg Leu Lys Glu Asn Tyr Val Leu			
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Leu Ser Thr Asp Gly Pro Gly Arg Asn Ile Leu Lys Phe Lys Pro Pro			
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Met Cys Phe Ser Leu Asp Asn Ala Arg Gln Val Val Ala Lys Leu Asp			
420	425	430	
Ala Ile Leu Thr Asp Met Glu Glu Lys Val Arg Ser Cys Glu Thr Leu			

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 Arg Leu Gln Pro  
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<210> 2923  
 <211> 572  
 <212> DNA  
 <213> Homo sapiens

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Gln Asn Pro Leu Val Ser Glu Arg Leu Glu Leu Ser Val Leu Tyr Lys
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&lt;211&gt; 1166

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

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Asp Pro Asp Ser Ala Leu Gly Asn Gly Ser Gly Glu Phe Ser Gln Asn
      500      505      510
Ser Met Glu Glu Lys Gln Glu Thr Lys Ser Thr Asp Gly Gln Glu Pro
      515      520      525
His Ser Val Val Tyr Asp Thr Ser Asn Gly Lys Lys Val Val Asp Ser
      530      535      540
Ile Arg Asn Leu Lys Ser Leu Gly Pro Asn Gln Glu Asn Val Gln Asn
545      550      555      560
Glu Ile Ile Val Tyr Pro Glu Asn Thr Glu Asp Asn Met Lys Asn Gly
      565      570      575
Val Lys Lys Thr Glu Ile Asn Val Glu Gly Val Ala Lys Asn Asn Asn
      580      585      590
Ile Asp Met Glu Val Glu Arg Pro Ser Asn Ser Glu Ala His Glu Thr
      595      600      605
Asp Thr Ala Ile Ser Tyr Lys Glu Asn His Leu Ala Ala Ser Ser Val
      610      615      620
Pro Asp Gln Lys Leu Asn Gln Pro Ser Ala Glu Lys Thr Lys Asp Ala
625      630      635      640
Ala Ile Gln Thr Thr Pro Ser Cys Asn Ser Phe Asp Gly Lys His Gln
      645      650      655
Asp His Asn Leu Ser Asp Ser Lys Val Glu Glu Cys Val Gln Thr Ser
      660      665      670
Asn Asn Asn Ile Ser Thr Gln His Ser Cys Leu Ser Ser Gln Asp Ser
      675      680      685
Val Asn Thr Ser Arg Glu Phe Arg Ser Gln Gly Thr Leu Ile Ile His
      690      695      700
Ser Glu Asp Pro Leu Thr Val Lys Asp Pro Ile Cys Ala His Gly Asn
705      710      715      720
Asp Asp Leu Leu Pro Pro Val Asp Arg Ile Asp Lys Asn Ser Thr Ala
      725      730      735
Ser Tyr Leu Lys Asn Tyr Pro Leu Tyr Arg Gln Asp Tyr Asn Pro Lys
      740      745      750
Pro Lys Pro Ser Asn Glu Ile Thr Arg Glu Tyr Ile Pro Lys Ile Gly
      755      760      765
Met Thr Thr Tyr Lys Ile Val Pro Pro Lys Ser Leu Glu Ile Ser Lys
      770      775      780
Asp Trp Gln Ser Glu Thr Ile Glu Tyr Lys Asp Asp Gln Asp Met His
785      790      795      800
Ala Leu Gly Lys Lys His Thr His Glu Asn Val Lys Glu Thr Ala Ile

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 180  
 gtgttttttag gttcactctg atgagttgcc atgaaatcaa accaatctaa actgtcatct  
 240  
 ctgttatattt tgtgctgagc tgaatgttcc ctacttggtg atctattagg ctccagatgc  
 300  
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 360  
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 540  
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&lt;210&gt; 2932

&lt;211&gt; 90

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2932

Met	Cys	Glu	Pro	Gly	Gln	Arg	Ser	Lys	Val	Asp	Ile	Gly	Leu	Leu	Pro
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Ser	Pro	Gly	Glu	Thr	Gly	Val	Pro	Trp	Arg	Ala	Asp	Asn	Val	Glu	Ser
		20					25						30		
Asn	Lys	Lys	Lys	Arg	Leu	Ala	Leu	Asp	Ser	Glu	Ala	Ala	Val	Ser	Ala
	35					40						45			
Asp	Lys	Pro	Asp	Ser	Val	Leu	Thr	His	His	Val	Pro	Arg	Asn	Leu	Gln
	50				55					60					
Lys	Leu	Cys	Lys	Glu	Arg	Ala	Gln	Lys	Leu	Cys	Arg	Asn	Ser	Thr	Arg
65				70					75					80	
Val	Pro	Ala	Gln	Cys	Thr	Val	Pro	Ser	Arg						
			85						90						

&lt;210&gt; 2933

&lt;211&gt; 688

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2933

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 gatgaggaaa ggatgttaca gagctctcct ccaatatctg gtgaagacaa caaatgggag  
 120  
 cgagaaagtc aagaaacgac tagagaactt ctgaaagtta aagacagatt aattgaagta  
 180  
 gaaagaaata atgtacact gcaagcagag aagcaagcgt tgaaaactca actgaagcaa  
 240



cttgagacac agaacaataa tttgcaggct cagattcttg cacttcagag gcagacagtg  
 300  
 tcattacaag aacagaatac cactcttcaa acacagaatg ccaagcttca ggttgaaaat  
 360  
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 420  
 cagtcttct tagaaaatga aaatgaatct gtaatcaaag agcgagaaga cctaaaatct  
 480  
 ctctatgatt ctctgatcaa agatcatgaa aagctggaac ttcttcatga acgtcaggct  
 540  
 tcagagtatg aatctcttat ctctaaacat ggaactctga agtctgcccc caaaaatctt  
 600  
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 660  
 ttggaagatt tggaaaaaat gctcaaag  
 688

<210> 2934

<211> 229

<212> PRT

<213> Homo sapiens

<400> 2934

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Lys	Gln	Arg	Gln	Asp	Glu	Glu	Arg	Met	Val	Gln	Ser	Ser	Pro	Pro	Ile
			20					25					30		
Ser	Gly	Glu	Asp	Asn	Lys	Trp	Glu	Arg	Glu	Ser	Gln	Glu	Thr	Thr	Arg
			35				40					45			
Glu	Leu	Leu	Lys	Val	Lys	Asp	Arg	Leu	Ile	Glu	Val	Glu	Arg	Asn	Asn
			50			55					60				
Ala	Thr	Leu	Gln	Ala	Glu	Lys	Gln	Ala	Leu	Lys	Thr	Gln	Leu	Lys	Gln
65					70					75					80
Leu	Glu	Thr	Gln	Asn	Asn	Leu	Gln	Ala	Gln	Ile	Leu	Ala	Leu	Gln	
				85				90					95		
Arg	Gln	Thr	Val	Ser	Leu	Gln	Glu	Gln	Asn	Thr	Thr	Leu	Gln	Thr	Gln
			100					105					110		
Asn	Ala	Lys	Leu	Gln	Val	Glu	Asn	Ser	Thr	Leu	Asn	Ser	Gln	Ser	Thr
			115				120					125			
Ser	Leu	Met	Asn	Gln	Asn	Ala	Gln	Leu	Leu	Ile	Gln	Gln	Ser	Ser	Leu
			130			135					140				
Glu	Asn	Glu	Asn	Glu	Ser	Val	Ile	Lys	Glu	Arg	Glu	Asp	Leu	Lys	Ser
145					150					155					160
Leu	Tyr	Asp	Ser	Leu	Ile	Lys	Asp	His	Glu	Lys	Leu	Glu	Leu	Leu	His
				165					170					175	
Glu	Arg	Gln	Ala	Ser	Glu	Tyr	Glu	Ser	Leu	Ile	Ser	Lys	His	Gly	Thr
			180					185					190		
Leu	Lys	Ser	Ala	His	Lys	Asn	Leu	Glu	Val	Glu	His	Arg	Asp	Leu	Glu
			195				200					205			
Asp	Arg	Tyr	Asn	Gln	Leu	Leu	Lys	Gln	Lys	Gly	Gln	Leu	Glu	Asp	Leu
			210				215					220			
Glu	Lys	Met	Leu	Lys											
225															

<210> 2935  
<211> 1200  
<212> DNA  
<213> Homo sapiens

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120  
aactctaaaa gataaagcaa gaaatgtcaa gtaggttttg cacattgggc tgctttaggc  
180  
tgtgacctct gattcttctg gtgtactcat gatactctcc cttggtgccc tccaggctga  
240  
cgcagctatt tacgttcaga gtgaaatggg ctgtgtggct gggattggga aaggccttgt  
300  
taaagctggg agaggtttgg tcatggtgac aggggacctg aaggcccagc tcctcttccc  
360  
tcttgccaat acagggacaa gttaaagaag aagaagaaag taaaggtaaa gatggaaaaa  
420  
aaatccacgc cctctagggg ctcatcatcc aagtcgtcct caaggcagct aagcgagagc  
480  
ttcaagagca aagagtttgt gtctagtgat gagagctctt cgggagagaa caagagcaaa  
540  
aagaagagga ggaggagcga ggactctgaa gaagaagaac tagccagtac tccccccagc  
600  
tcagaggact cagcgtcagg atccgatgag tagaaacgga ggaaggttct ctttgcgctt  
660  
gccttctcac acccccggga agtcagcagg gaaacgcaga gaactcctat gaaccaccaa  
720  
aaggctgtaa atgatgaaac atgcaaagct agccacataa catcaagtgt ctttccttca  
780  
gcctctctcg gtaaagcatc atctcgaaag ccatttgga tcttttctcc aaatgttctg  
840  
tgcagtatga gtgggaagag tctgttagag agcagcttga atgttaaaac caaaaagaat  
900  
gcaccatctg caacgatcca ccagggcgaa gaagaaggac cacttgatat ctgggctgtt  
960  
gtgaaacctg gaaataccaa ggaaaaaatt gcattctttg catcccacca gtgtagtaac  
1020  
aggataggat ctatgaaaat aaaaagtcc tgggatattg atgggagagc tactaagaga  
1080  
aggaaaaaat caggggatct taaaaagcc aagggtacagg tggaaaggat gagggaggtt  
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1200

<210> 2936  
<211> 109  
<212> PRT  
<213> Homo sapiens

<400> 2936  
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<400> 2938  
Xaa Asn Ser Ser Glu Ser Gly Ser Leu Glu Val Val Asp Ser Ser Gly

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Glu Ile Ile His Arg Val Lys Lys Leu Thr Cys Arg Val Lys Ile Lys
      20           25           30
Glu Ala Thr Gly Leu Pro Leu Asn Leu Ser Asn Phe Val Phe Cys Gln
      35           40           45
Tyr Thr Phe Trp Asp Gln Cys Glu Ser Thr Val Ala Ala Pro Val Val
      50           55           60
Asp Pro Glu Val Pro Ser Pro Gln Ser Lys Asp Ala Gln Tyr Thr Val
      65           70           75           80
Thr Phe Ser His Cys Lys Asp Tyr Val Val Asn Val Thr Glu Glu Phe
      85           90           95
Leu Glu Phe Ile Ser Asp Gly Ala Leu Ala Ile Glu Val Trp Gly His
      100          105          110
Arg Cys Ala Gly Asn Gly Ser Ser Ile Trp Glu Val Asp Ser Leu His
      115          120          125
Ala Lys Thr Arg Thr Leu His Asp Arg Trp Asn Glu Val Thr Arg Arg
      130          135          140
Ile Glu Met Trp Ile Ser Ile Leu Glu Leu Asn Glu Leu Gly Glu Tyr
      145          150          155          160
Ala Ala Val Glu Leu His Gln Ala Lys Asp Val Asn Thr Gly Gly Ile
      165          170          175
Phe Gln Leu Arg Gln Gly His Ser Arg Arg Val Gln Val Thr Val Lys
      180          185          190
Pro Val Gln His Ser Gly Thr Leu Pro Leu Met Val Glu Ala Ile Leu
      195          200          205
Ser Val Ser Ile Gly Cys Val Thr Ala Arg Ser Thr Lys Leu Gln Arg
      210          215          220
Gly Leu Asp Ser Tyr Gln Arg Asp Asp Glu Asp Gly Asp Asp Met Asp
      225          230          235          240
Ser Tyr Gln Glu Glu Asp Leu Asn Cys
      245

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&lt;210&gt; 2939

&lt;211&gt; 2405

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2939

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120
ccactgcac cagccaatag gagcccagcc accatggcgg agctgcagga ggtgcagatc
180
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240
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300
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360
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420
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480

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600  
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660  
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720  
caggaagagc tctctggaaa ttctgagttg atacaaaagt acagaaatat cattacacat  
780  
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840  
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900  
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960  
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1020  
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1320  
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1860  
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1920  
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1980  
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2100

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<210> 2940
<211> 357
<212> PRT
<213> Homo sapiens
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Pro	Gly	Gln	Thr	Pro	Glu	Ala	Ala	Lys	Thr	His	Ser	Val	Glu	Thr	Pro	
			20					25					30			
Tyr	Gly	Ser	Val	Thr	Phe	Thr	Val	Tyr	Gly	Thr	Pro	Lys	Pro	Lys	Arg	
		35					40					45				
Pro	Ala	Ile	Leu	Thr	Tyr	His	Asp	Val	Gly	Leu	Asn	Tyr	Lys	Ser	Cys	
	50					55					60					
Phe	Gln	Pro	Leu	Phe	Gln	Phe	Glu	Asp	Met	Gln	Glu	Ile	Ile	Gln	Asn	
65					70					75				80		
Phe	Val	Arg	Val	His	Val	Asp	Ala	Pro	Gly	Met	Glu	Glu	Gly	Ala	Pro	
				85					90					95		
Val	Phe	Pro	Leu	Gly	Tyr	Gln	Tyr	Pro	Ser	Leu	Asp	Gln	Leu	Ala	Asp	
			100					105					110			
Met	Ile	Pro	Cys	Val	Leu	Gln	Tyr	Leu	Asn	Phe	Ser	Thr	Ile	Ile	Gly	
		115					120					125				
Val	Gly	Val	Gly	Ala	Gly	Ala	Tyr	Ile	Leu	Ala	Arg	Tyr	Ala	Leu	Asn	
	130					135					140					
His	Pro	Asp	Thr	Val	Glu	Gly	Leu	Val	Leu	Ile	Asn	Ile	Asp	Pro	Asn	
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Ala	Lys	Gly	Trp	Met	Asp	Trp	Ala	Ala	His	Lys	Leu	Thr	Gly	Leu	Thr	
				165					170					175		
Ser	Ser	Ile	Pro	Glu	Met	Ile	Leu	Gly	His	Leu	Phe	Ser	Gln	Glu	Glu	
			180					185					190			
Leu	Ser	Gly	Asn	Ser	Glu	Leu	Ile	Gln	Lys	Tyr	Arg	Asn	Ile	Ile	Thr	
		195					200					205				
His	Ala	Pro	Asn	Leu	Asp	Asn	Ile	Glu	Leu	Tyr	Trp	Asn	Ser	Tyr	Asn	
	210					215					220					
Asn	Arg	Arg	Asp	Leu	Asn	Phe	Glu	Arg	Gly	Gly	Asp	Ile	Thr	Leu	Arg	
225				230					235					240		
Cys	Pro	Val	Met	Leu	Val	Val	Gly	Asp	Gln	Ala	Pro	His	Glu	Asp	Ala	
				245					250					255		
Val	Val	Glu	Cys	Asn	Ser	Lys	Leu	Asp	Pro	Thr	Gln	Thr	Ser	Phe	Leu	
			260					265					270			
Lys	Met	Ala	Asp	Ser	Gly	Gly	Gln	Pro	Gln	Leu	Thr	Gln	Pro	Gly	Lys	

	275		280		285										
Leu	Thr	Glu	Ala	Phe	Lys	Tyr	Phe	Leu	Gln	Gly	Met	Gly	Tyr	Met	Ala
	290					295					300				
Ser	Ser	Cys	Met	Thr	Arg	Leu	Ser	Arg	Ser	Arg	Thr	Ala	Ser	Leu	Thr
305					310					315				320	
Ser	Ala	Ala	Ser	Val	Asp	Gly	Asn	Arg	Ser	Arg	Ser	Arg	Thr	Leu	Ser
				325					330					335	
Gln	Ser	Ser	Glu	Ser	Gly	Thr	Leu	Ser	Ser	Gly	Pro	Pro	Gly	His	Thr
			340					345					350		
Met	Glu	Val	Ser	Cys											
			355												

&lt;210&gt; 2941

&lt;211&gt; 847

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2941

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 120  
 ggtgccagcc ccacagcccg ccagcatctc tttaagcagg gtcagctctc ggcccagggg  
 180  
 ggtgcccagc cctcagtgga ggctccagct gcccctcggc ccacggccac ccagctgacc  
 240  
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 300  
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 660  
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 720  
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 840  
 ggtgcac  
 847

&lt;210&gt; 2942

&lt;211&gt; 229

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2942

Xaa Ala Leu Ser Ser Leu Arg Ala Leu Gly Ser Gln Asp Leu Pro Leu  
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 Gly Gly Asn Ala Pro Cys Ile Leu Gln Leu Asp Leu Gln His Leu His  
 20 25 30  
 Gly Arg Gly His Asp His Leu Ala Gly Ala Ser Pro Thr Ala Arg Gln  
 35 40 45  
 His Leu Phe Lys Gln Gly Gln Leu Ser Ala Gln Gly Gly Ala Gln Pro  
 50 55 60  
 Ser Val Glu Ala Pro Ala Ala Pro Arg Pro Thr Ala Thr Gln Leu Thr  
 65 70 75 80  
 Arg Asp Leu Leu Arg Ser Arg Gly Ile Ala Gly Leu Tyr Lys Gly Leu  
 85 90 95  
 Gly Ala Thr Leu Leu Arg Asp Val Pro Phe Ser Val Val Tyr Phe Pro  
 100 105 110  
 Leu Phe Ala Asn Leu Asn Gln Leu Gly Arg Pro Ala Ser Glu Glu Lys  
 115 120 125  
 Ser Pro Phe Tyr Val Ser Phe Leu Ala Gly Cys Val Ala Gly Ser Ala  
 130 135 140  
 Ala Ala Val Ala Val Asn Pro Cys Asp Val Val Lys Thr Arg Leu Gln  
 145 150 155 160  
 Ser Leu Gln Arg Gly Val Asn Glu Asp Thr Tyr Ser Gly Ile Leu Asp  
 165 170 175  
 Cys Ala Arg Lys Ile Leu Arg His Glu Gly Pro Ser Ala Phe Leu Lys  
 180 185 190  
 Gly Ala Tyr Cys Arg Ala Leu Val Ile Ala Pro Leu Phe Gly Ile Ala  
 195 200 205  
 Gln Val Val Tyr Phe Leu Gly Ile Ala Glu Ser Leu Leu Gly Leu Leu  
 210 215 220  
 Gln Asp Pro Gln Ala  
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&lt;210&gt; 2943

&lt;211&gt; 1501

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2943

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 120  
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 180  
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 240  
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 300  
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 360  
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&lt;210&gt; 2944

&lt;211&gt; 218

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2944

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Ala	Leu	Arg	Val	Leu	Lys	Gln	Lys	Arg	Met	Tyr	Glu	Gln	Gln	Arg	Asp
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&lt;210&gt; 2946

&lt;211&gt; 463

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2946

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Lys	Arg	Thr	Thr	Pro	Leu	Gln	Thr	His	Ser	Ile	Ile	Ile	Ser	Asp	Gln
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Pro	Ala	Glu	Gly	Leu	Ala	Ala	Ala	Ser	Val	Val	Met	Ala	Ala	Asp	Arg
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Ala Glu Glu Val Lys Thr Gly Lys Cys Ala Thr Val Ser Ala Ala Val
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Ala Glu Arg Glu Ser Ala Glu Val Val Val Lys Glu Gly Leu Ala Glu
          195          200          205
Lys Glu Val Met Glu Glu Gln Met Glu Val Glu Glu Gln Pro Pro Glu
          210          215          220
Gly Glu Glu Ile Glu Val Ala Glu Glu Asp Arg Leu Glu Glu Glu Ala
225          230          235          240
Arg Glu Glu Glu Gly Pro Trp Pro Leu His Glu Ala Leu Arg Met Asp
          245          250          255
Pro Leu Glu Ala Ile Gln Leu Glu Leu Asp Thr Val Asn Ala Gln Ala
          260          265          270
Asp Arg Ala Phe Gln Gln Leu Glu His Lys Phe Gly Arg Met Arg Arg
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His Tyr Leu Glu Arg Arg Asn Tyr Ile Ile Gln Asn Ile Pro Gly Phe
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Trp Met Thr Ala Phe Arg Asn His Pro Gln Leu Ser Ala Met Ile Arg
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Gly Gln Asp Ala Glu Met Leu Arg Tyr Ile Thr Asn Leu Glu Val Lys
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Glu Leu Arg His Pro Arg Thr Gly Cys Lys Phe Lys Phe Phe Phe Arg
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Cys Ser Phe Phe Thr Trp Phe Ser Asp His Ser Leu Pro Glu Ser Asp
          405          410          415
Lys Ile Ala Glu Ile Ile Lys Glu Asp Leu Trp Pro Asn Pro Leu Gln
          420          425          430
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 <211> 997  
 <212> DNA  
 <213> Homo sapiens

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&lt;210&gt; 2948

&lt;211&gt; 332

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2948

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Pro	Thr	Ser	Asp	Gly	Ile	Leu	Val	Ser	Ala	Ala	Gly	Thr	Thr	Val
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Phe	Asn	Gln	Met	Arg	Glu	Arg	Glu	Val	Lys	Leu	Trp	Asp	Thr	Arg	Phe	
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<212> DNA
<213> Homo sapiens
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 <213> Homo sapiens

<400> 2951



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<211> 493

<212> PRT

<213> Homo sapiens

<400> 2952

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<212> DNA
<213> Homo sapiens
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&lt;210&gt; 2954

&lt;211&gt; 181

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2954

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Phe	Phe	Ser	Asp	Leu	Leu	Leu	Ser	Trp	Phe	Pro	Phe	Tyr	Tyr	Val	Gly
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&lt;210&gt; 2955

&lt;211&gt; 295

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2955

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&lt;210&gt; 2956

&lt;211&gt; 91

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2956

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		35					40					45			
Ile	Asn	Ser	Tyr	Phe	Pro	Ile	Ser	His	Tyr	Lys	Gly	His	Thr	Val	Leu
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Pro	Leu	Pro	Leu	Ser	Ser	Lys	Ile	Ala	Ser	Pro	Pro	Phe	Ser	Leu	Ile
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&lt;210&gt; 2957

&lt;211&gt; 4724

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2957

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&lt;210&gt; 2958

&lt;211&gt; 1047

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2958

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			20					25					30		
Ala	Ile	Val	Val	Ser	Val	Gly	Val	Asp	Glu	Glu	Ile	Val	Tyr	Ala	Lys
		35				40						45			
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Lys	Pro	Glu	Leu	Leu	Asn	Lys	Ile	Thr	Lys	Asn	Leu	Gly	Phe	Gly	Met
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2191

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&lt;210&gt; 2959

&lt;211&gt; 3323

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2959

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<211> 868

<212> PRT

<213> Homo sapiens

<400> 2960

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Gly	Glu	Glu	Gln	Ala	Gln	Tyr	Cys	Arg	Ala	Ala	Glu	Glu	Leu	Ser	Lys
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Lys	Phe	Pro	Phe	Ser	Glu	Asn	Gln	Ile	Cys	Leu	Thr	Phe	Thr	Trp	Lys
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Leu	Ala	Ser	Leu	Gly	Tyr	Glu	Lys	Ser	Cys	Val	Leu	Phe	Asn	Cys	Ala
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Lys	Asp	Ala	Ile	Ile	Ala	Lys	Leu	Ala	Asn	Gln	Ala	Ala	Asp	Tyr	Phe																																												
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Val	Phe	Pro	Val	Leu	Ala	Ala	Lys	His	Cys	Ile	Met	Gln	Ala	Asn	Ala																																												
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Glu	Tyr	His	Gln			Ser	Ile	Leu	Ala	Lys	Gln	Gln	Lys	Lys	Phe	Gly	Glu																																										
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Glu	Ile	Ala	Arg	Leu	Gln	His	Ala	Ala	Glu	Leu	Ile	Lys	Thr	Val	Ala																																												
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Ser	Arg	Tyr	Asp	Glu	Tyr	Val	Asn	Val	Lys	Asp	Phe	Ser	Asp	Lys	Ile																																												
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Leu	Val	Lys	Ser	Thr	Pro	Val	Asn	Val	Pro	Ile	Ser	Gln	Lys	Phe	Thr																																												
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Gln Ser Asn Asn Glu Ala Asn Leu Arg Glu Glu Val Leu Lys Asn Leu
      645              650              655
Ala Thr Ala Tyr Asp Asn Phe Val Glu Leu Val Ala Asn Leu Lys Glu
      660              665              670
Gly Thr Lys Phe Tyr Asn Glu Leu Thr Glu Ile Leu Val Arg Phe Gln
      675              680              685
Asn Lys Cys Ser Asp Ile Val Phe Ala Arg Lys Thr Glu Arg Asp Glu
      690              695              700
Leu Leu Lys Asp Leu Gln Gln Ser Ile Ala Arg Glu Pro Ser Ala Pro
  705              710              715              720
Ser Ile Pro Thr Pro Ala Tyr Gln Ser Leu Pro Ala Gly Gly His Ala
      725              730              735
Pro Thr Pro Pro Thr Pro Ala Pro Arg Thr Met Pro Pro Thr Lys Pro
      740              745              750
Gln Pro Pro Ala Arg Pro Pro Pro Val Leu Pro Ala Asn Arg Ala
      755              760              765
Pro Ser Ala Thr Ala Pro Ser Pro Val Gly Ala Gly Thr Ala Ala Pro
      770              775              780
Ala Pro Ser Gln Thr Pro Gly Ser Ala Pro Pro Pro Gln Ala Gln Gly
  785              790              795              800
Pro Pro Tyr Pro Thr Tyr Pro Gly Tyr Pro Gly Tyr Cys Gln Met Pro
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Met Pro Met Gly Tyr Asn Pro Tyr Ala Tyr Gly Gln Tyr Asn Met Pro
      820              825              830
Tyr Pro Pro Val Tyr His Gln Ser Pro Gly Gln Ala Pro Tyr Pro Gly
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&lt;210&gt; 2961

&lt;211&gt; 434

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2961

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Leu Met Val His Glu Trp Val Val Val Lys Gly Ala Val Trp Ala Gly
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Pro Leu Pro Gln Ala Trp Pro Pro Asp Thr Pro Phe Pro Ala Asp Val
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<213> Homo sapiens

<400> 2965

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&lt;211&gt; 386

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2966

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&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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&lt;211&gt; 126

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2968

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Ile	Ile	Ala	Val	Val	Leu	Gly	Val	Ile	Trp	Gly	Val	Leu	Pro	Leu
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Gly	Phe	Leu	Gly	Ile	Ala	Gly	Phe	Cys	Leu	Ile	Asn	Ala	Gly	Val
														Leu

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Ser Gln Thr Ile Met Ile Ala Trp Gly Ser Pro Ser Asn Arg Asp Phe
35              40              45
Met Glu Thr Leu Asn Thr Leu Lys Tyr Ala Asn Arg Ala Arg Asn Ile
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5880  
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6015

&lt;210&gt; 2972

&lt;211&gt; 632

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2972

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Met Asn Arg Tyr Thr Thr Ile Arg Gln Leu Gly Asp Gly Thr Tyr Gly
 1           5           10           15
Ser Val Leu Leu Gly Arg Ser Ile Glu Ser Gly Glu Leu Ile Ala Ile
      20           25           30
Lys Lys Met Lys Arg Lys Phe Tyr Ser Trp Glu Glu Cys Met Asn Leu
      35           40           45
Arg Glu Val Lys Ser Leu Lys Lys Leu Asn His Ala Asn Val Val Lys
      50           55           60
Leu Lys Glu Val Ile Arg Glu Asn Asp His Leu Tyr Phe Ile Phe Glu
65           70           75           80
Tyr Met Lys Glu Asn Leu Tyr Gln Leu Ile Lys Glu Arg Asn Lys Leu
      85           90           95
Phe Pro Glu Ser Ala Ile Arg Asn Ile Met Tyr Gln Ile Leu Gln Gly
      100          105          110
Leu Ala Phe Ile His Lys His Gly Phe Phe His Arg Asp Leu Lys Pro
      115          120          125
Glu Asn Leu Leu Cys Met Gly Pro Glu Leu Val Lys Ile Ala Asp Phe
      130          135          140
Gly Leu Ala Arg Glu Ile Arg Ser Lys Pro Pro Tyr Thr Asp Tyr Val
145          150          155          160
Ser Thr Arg Trp Tyr Arg Ala Pro Glu Val Leu Leu Arg Ser Thr Asn
      165          170          175
Tyr Ser Ser Pro Ile Asp Val Trp Ala Val Gly Cys Ile Met Ala Glu
      180          185          190
Val Tyr Thr Leu Arg Pro Leu Phe Pro Gly Ala Ser Glu Ile Asp Thr
      195          200          205
Ile Phe Lys Ile Cys Gln Val Leu Gly Thr Pro Lys Lys Thr Asp Trp
      210          215          220
Pro Glu Gly Tyr Gln Leu Ser Ser Ala Met Asn Phe Arg Trp Pro Gln
225          230          235          240
Cys Val Pro Asn Asn Leu Lys Thr Leu Ile Pro Asn Ala Ser Ser Glu
      245          250          255
Ala Val Gln Leu Leu Arg Asp Met Leu Gln Trp Asp Pro Lys Lys Arg
      260          265          270
Pro Thr Ala Ser Gln Ala Leu Arg Tyr Pro Tyr Phe Gln Val Gly His
      275          280          285
Pro Leu Gly Ser Thr Thr Gln Asn Leu Gln Asp Ser Glu Lys Pro Gln
      290          295          300
Lys Gly Ile Leu Glu Lys Ala Gly Pro Pro Pro Tyr Ile Lys Pro Val
305          310          315          320
Pro Pro Ala Gln Pro Pro Ala Lys Pro His Thr Arg Ile Ser Ser Arg
      325          330          335
Gln His Gln Ala Ser Gln Pro Pro Leu His Leu Thr Tyr Pro Tyr Lys
      340          345          350
Ala Glu Val Ser Arg Thr Asp His Pro Ser His Leu Gln Glu Asp Lys
      355          360          365
Pro Ser Pro Leu Leu Phe Pro Ser Leu His Asn Lys His Pro Gln Ser
      370          375          380
Lys Ile Thr Ala Gly Leu Glu His Lys Asn Gly Glu Ile Lys Pro Lys
385          390          395          400
Ser Arg Arg Arg Trp Gly Leu Ile Ser Arg Ser Thr Lys Asp Ser Asp

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405 410 415  
 Asp Trp Ala Asp Leu Asp Asp Leu Asp Phe Ser Pro Ser Leu Ser Arg  
 420 425 430  
 Ile Asp Leu Lys Asn Lys Lys Arg Gln Ser Asp Asp Thr Leu Cys Arg  
 435 440 445  
 Phe Glu Ser Val Leu Asp Leu Lys Pro Ser Glu Pro Val Gly Thr Gly  
 450 455 460  
 Asn Ser Ala Pro Thr Gln Thr Ser Tyr Gln Arg Arg Asp Thr Pro Thr  
 465 470 475 480  
 Leu Arg Ser Ala Ala Lys Gln His Tyr Leu Lys His Ser Arg Tyr Leu  
 485 490 495  
 Pro Gly Ile Ser Ile Arg Asn Gly Ile Leu Ser Asn Pro Gly Lys Glu  
 500 505 510  
 Phe Ile Pro Pro Asn Pro Trp Ser Ser Gly Leu Ser Gly Lys Ser  
 515 520 525  
 Ser Gly Thr Met Ser Val Ile Ser Lys Val Asn Ser Val Gly Ser Ser  
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 Ser Thr Ser Ser Ser Gly Leu Thr Gly Asn Tyr Val Pro Ser Phe Leu  
 545 550 555 560  
 Lys Lys Glu Ile Gly Ser Ala Met Gln Arg Val His Leu Ala Pro Ile  
 565 570 575  
 Pro Asp Pro Ser Pro Gly Tyr Ser Ser Leu Lys Ala Met Arg Pro His  
 580 585 590  
 Pro Gly Arg Pro Phe Phe His Thr Gln Pro Arg Ser Thr Pro Gly Leu  
 595 600 605  
 Ile Pro Arg Pro Pro Ala Ala Gln Pro Val His Gly Arg Thr Asp Trp  
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 Ala Ser Lys Tyr Ala Ser Arg Arg  
 625 630

&lt;210&gt; 2973

&lt;211&gt; 858

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2973

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 180  
 gcctactcct ctcatgaccc agaggcacta acgcgggaac tccaggagca tgtgaaaagg  
 240  
 gtgactgctc catacaaaac cccaggaag gtggcctttg tttcagaact gccaaagacg  
 300  
 gtttctggaa agatccaaag gagtaaattg cgaagtcagg agtgggggaa atgaggtgca  
 360  
 cccaggaag gccctgtaga cctccgaaga ctccacaaga aactaatgga tcaactggta  
 420  
 gtccccatgg ggagcatcat ctcttcgacc cttaaagatgt caaaggtgtg cagcttccaa  
 480  
 acggcatccc caggatcact gggcaatgct ggaaagagca aaagaatatc attggcctcg  
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atcacataga tgctgcgccg cctagcaaat gcttggtggt tcgacttctc cctctgtctg  
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 ggggcaggct cagcatctgc ccactggtct cactaagagc tttcagattt ccctccatag  
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 720  
 aaggcttcat cctttgtatg taaccatttg gcaaaagtat gcaggaacat aaaataaaat  
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 840  
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 858

<210> 2974

<211> 117

<212> PRT

<213> Homo sapiens

<400> 2974

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Ser	Tyr	Arg	Ile	Gly	Pro	Val	Glu	Val	Glu	Ser	Ala	Leu	Ala	Glu	His
		20					25						30		
Pro	Ala	Val	Leu	Glu	Ser	Ala	Val	Val	Ser	Ser	Pro	Asp	Pro	Ile	Arg
		35					40					45			
Gly	Glu	Val	Val	Lys	Ala	Phe	Ile	Val	Leu	Thr	Pro	Ala	Tyr	Ser	Ser
	50					55					60				
His	Asp	Pro	Glu	Ala	Leu	Thr	Arg	Glu	Leu	Gln	Glu	His	Val	Lys	Arg
65					70					75				80	
Val	Thr	Ala	Pro	Tyr	Lys	Thr	Pro	Arg	Lys	Val	Ala	Phe	Val	Ser	Glu
			85					90					95		
Leu	Pro	Lys	Thr	Val	Ser	Gly	Lys	Ile	Gln	Arg	Ser	Lys	Leu	Arg	Ser
		100					105						110		
Gln	Glu	Trp	Gly	Lys											
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<210> 2975

<211> 1425

<212> DNA

<213> Homo sapiens

<400> 2975

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 180  
 agagatgctg agctgccgaa gaagcgtatg gggaagtcaa accccggctg ggagaacttg  
 240  
 gagaagttgc tagtgttcac cgcagctggg gtgaaaccgg ggnncaaggt ggctggcttt  
 300  
 gatctggacg ggacgctcat caccacacgc tctgggaagg tctttccac tggccccagt  
 360

gactggagga tcttgtaccc agagattccc cgtaagctcc gagagctgga agccgagggc  
 420  
 tacaagctgg tgatcttcac caaccagatg agcatcgggc gcgggaagct gccagccgag  
 480  
 gagttcaagg ccaaggtgga ggctgtggtg gagaagctgg gggccccctt ccaggtgctg  
 540  
 gtggccacgc acgcaggctt gtaccggaag ccggtgacgg gcatgtggga ccatctgcag  
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 1080  
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 1260  
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 1320  
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 1425

&lt;210&gt; 2976

&lt;211&gt; 328

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2976

Pro	Ser	Thr	Thr	Gly	Thr	Gln	Glu	Leu	Lys	Pro	Gly	Leu	Glu	Gly	Ser
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Leu	Gly	Val	Gly	Asp	Thr	Met	Tyr	Thr	Val	Asn	Gly	Val	His	Pro	Leu
			20					25					30		
Thr	Leu	Arg	Trp	Glu	Glu	Thr	Arg	Thr	Pro	Glu	Ser	Gln	Pro	Asp	Thr
		35					40					45			
Pro	Pro	Gly	Thr	Pro	Leu	Val	Ser	Gln	Asp	Glu	Lys	Arg	Asp	Ala	Glu
		50				55				60					
Leu	Pro	Lys	Lys	Arg	Met	Gly	Lys	Ser	Asn	Pro	Gly	Trp	Glu	Asn	Leu
65				70					75				80		
Glu	Lys	Leu	Leu	Val	Phe	Thr	Ala	Ala	Gly	Val	Lys	Pro	Gly	Xaa	Lys

85 90 95  
 Val Ala Gly Phe Asp Leu Asp Gly Thr Leu Ile Thr Thr Arg Ser Gly  
 100 105 110  
 Lys Val Phe Pro Thr Gly Pro Ser Asp Trp Arg Ile Leu Tyr Pro Glu  
 115 120 125  
 Ile Pro Arg Lys Leu Arg Glu Leu Glu Ala Glu Gly Tyr Lys Leu Val  
 130 135 140  
 Ile Phe Thr Asn Gln Met Ser Ile Gly Arg Gly Lys Leu Pro Ala Glu  
 145 150 155 160  
 Glu Phe Lys Ala Lys Val Glu Ala Val Val Glu Lys Leu Gly Val Pro  
 165 170 175  
 Phe Gln Val Leu Val Ala Thr His Ala Gly Leu Tyr Arg Lys Pro Val  
 180 185 190  
 Thr Gly Met Trp Asp His Leu Gln Glu Gln Ala Asn Asp Gly Thr Pro  
 195 200 205  
 Ile Ser Ile Gly Asp Ser Ile Phe Val Gly Asp Ala Ala Gly Arg Pro  
 210 215 220  
 Ala Asn Trp Ala Pro Gly Arg Lys Lys Lys Asp Phe Ser Cys Ala Asp  
 225 230 235 240  
 Arg Leu Phe Ala Leu Asn Leu Gly Leu Pro Phe Ala Thr Pro Glu Glu  
 245 250 255  
 Phe Phe Leu Lys Trp Pro Ala Ala Gly Phe Glu Leu Pro Ala Phe Asp  
 260 265 270  
 Pro Arg Thr Val Ser Arg Ser Gly Pro Leu Cys Leu Pro Glu Ser Arg  
 275 280 285  
 Ala Leu Leu Ser Ala Ser Pro Glu Val Val Val Ala Val Gly Phe Pro  
 290 295 300  
 Gly Ala Gly Lys Ser Thr Phe Leu Lys Lys His Leu Val Ser Ala Gly  
 305 310 315 320  
 Tyr Val His Val Thr Gly Thr Arg  
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&lt;210&gt; 2977

&lt;211&gt; 1420

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2977

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 120  
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 180  
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 240  
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 300  
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 360  
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 420  
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 480



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 1380  
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 1420

&lt;210&gt; 2978

&lt;211&gt; 369

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2978

Xaa	Ser	Asn	Ile	His	Ala	Glu	Tyr	Arg	Met	Val	Val	Gly	Gly	Ala	Gln
1				5					10					15	
Ala	Gly	Asp	Ala	Gly	Thr	Tyr	His	Cys	Thr	Ala	Ala	Glu	Trp	Ile	Gln
		20						25					30		
Asp	Pro	Asp	Gly	Ser	Trp	Ala	Gln	Ile	Ala	Glu	Lys	Arg	Ala	Val	Leu
		35				40						45			
Ala	His	Val	Asp	Val	Gln	Thr	Leu	Ser	Ser	Gln	Leu	Ala	Val	Thr	Val
	50				55					60					
Gly	Pro	Gly	Glu	Arg	Arg	Ile	Gly	Pro	Gly	Glu	Pro	Leu	Glu	Leu	Leu
65				70					75					80	
Cys	Asn	Val	Ser	Gly	Ala	Leu	Pro	Pro	Ala	Gly	Arg	His	Ala	Ala	Tyr
			85						90				95		
Ser	Val	Gly	Trp	Glu	Met	Ala	Pro	Ala	Gly	Ala	Pro	Gly	Pro	Gly	Arg
		100					105					110			
Leu	Val	Ala	Gln	Leu	Asp	Thr	Glu	Gly	Val	Gly	Ser	Leu	Xaa	Ala	Leu

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      115      120      125
Ala Met Arg Ala Asp Xaa Ile Ala Met Glu Lys Val Ala Ser Arg Thr
      130      135      140
Tyr Arg Leu Arg Leu Glu Ala Ala Arg Pro Gly Asp Ala Gly Thr Tyr
145      150      155      160
Arg Cys Leu Ala Lys Ala Tyr Val Arg Gly Ser Gly Thr Arg Leu Arg
      165      170      175
Glu Ala Ala Ser Ala Arg Ser Arg Pro Leu Pro Val His Val Arg Glu
      180      185      190
Glu Gly Val Val Leu Glu Ala Val Ala Trp Leu Ala Gly Gly Thr Val
195      200      205
Tyr Arg Gly Glu Thr Ala Ser Leu Leu Cys Asn Ile Ser Val Arg Gly
210      215      220
Gly Pro Pro Gly Leu Arg Leu Ala Ala Ser Trp Trp Val Glu Arg Pro
225      230      235      240
Glu Asp Gly Glu Leu Ser Ser Val Pro Ala Gln Leu Val Gly Gly Val
      245      250      255
Gly Gln Asp Gly Val Ala Glu Leu Gly Val Arg Pro Gly Gly Gly Pro
260      265      270
Val Ser Val Glu Leu Val Gly Pro Arg Ser His Arg Leu Arg Leu His
275      280      285
Ser Leu Gly Pro Glu Asp Glu Gly Val Tyr His Cys Ala Pro Ser Ala
290      295      300
Trp Val Gln His Ala Asp Tyr Ser Trp Tyr Gln Ala Gly Ser Ala Arg
305      310      315      320
Ser Gly Pro Val Thr Val Tyr Pro Tyr Met His Ala Leu Asp Thr Leu
      325      330      335
Phe Val Pro Leu Leu Val Gly Thr Gly Val Ala Leu Val Thr Gly Ala
340      345      350
Thr Val Leu Gly Thr Ile Thr Cys Cys Phe Met Lys Arg Leu Arg Lys
355      360      365
Arg

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<210> 2979  
 <211> 2191  
 <212> DNA  
 <213> Homo sapiens

<400> 2979  
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 120  
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 180  
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 240  
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 300  
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1920  
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1980  
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2040

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 2160  
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 2191

<210> 2980

<211> 140

<212> PRT

<213> Homo sapiens

<400> 2980

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Leu	Leu	Val	Gly	Pro	Leu	Gln	Pro	Val	Gly	Lys	Pro	Ala	Arg	Leu	Leu
			20					25					30		
Gly	Thr	Glu	His	Gly	Gln	Pro	Phe	Ala	Arg	Gly	Trp	Gly	Ala	Trp	Gly
		35				40					45				
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<211> 617

<212> DNA

<213> Homo sapiens

<400> 2981

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 <213> Homo sapiens

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 50 55 60  
 Val Ser Leu Ser Thr Ala Asp Pro Gln Gly Val Thr Tyr Ala Glu Leu  
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Lys Arg Phe Ile Gly Asp Tyr Glu Pro Asn Thr Gly Lys Leu Tyr Ser  
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Thr Pro Gly Gly Val Gln Ile Gln Asp Ser Leu Pro Gln Val Val Asp  
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145 150 155 160  
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<210> 2985  
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<212> DNA  
<213> Homo sapiens

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<210> 2986  
 <211> 988  
 <212> PRT  
 <213> Homo sapiens

<400> 2986  
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 Glu Leu Cys Val Lys Leu Met Phe Leu His Pro Val Asp Tyr Gly Arg  
 35 40 45  
 Lys Ala Glu Glu Leu Leu Trp Arg Lys Val Tyr Tyr Glu Val Ile Gln  
 50 55 60  
 Leu Ile Lys Thr Asn Lys Lys His Ile His Ser Arg Ser Thr Leu Glu  
 65 70 75 80  
 Cys Ala Tyr Arg Thr His Leu Val Ala Gly Ile Gly Phe Tyr Gln His  
 85 90 95  
 Leu Leu Leu Tyr Ile Gln Ser His Tyr Gln Leu Glu Leu Gln Cys Cys  
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 Ile Asp Trp Thr His Val Thr Asp Pro Leu Ile Gly Cys Lys Lys Pro

2222

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    565                                      570                                      575  
 Arg Pro Cys Val Asn Gly Asp Val Asp Lys Pro Ser Glu Pro Ala Ser  
    580                                      585                                      590  
 Glu Glu Gly Ser Glu Ser Glu Gly Ser Glu Ser Ser Gly Arg Ser Cys  
    595                                      600                                      605  
 Arg Asn Glu Arg Ser Ile Gln Glu Lys Leu Gln Val Leu Met Ala Glu  
    610                                      615                                      620  
 Gly Leu Leu Pro Ala Val Lys Val Phe Leu Asp Trp Leu Arg Thr Asn  
    625                                      630                                      635                                      640  
 Pro Asp Leu Ile Ile Val Cys Ala Gln Ser Ser Gln Ser Leu Trp Asn  
    645                                      650                                      655  
 Arg Leu Ser Val Leu Leu Asn Leu Leu Pro Ala Ala Gly Glu Leu Gln  
    660                                      665                                      670  
 Glu Ser Gly Leu Ala Leu Cys Pro Glu Val Gln Asp Leu Leu Glu Gly  
    675                                      680                                      685  
 Cys Glu Leu Pro Asp Leu Pro Ser Ser Leu Leu Leu Pro Glu Asp Met  
    690                                      695                                      700  
 Ala Leu Arg Asn Leu Pro Pro Leu Arg Ala Ala His Arg Arg Phe Asn  
    705                                      710                                      715                                      720  
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    725                                      730                                      735  
 Arg Ile Cys Cys Ile Arg Ser Phe Gly His Phe Ile Ala Arg Leu Gln  
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 Arg Met Ala Gln Glu Glu Ala Arg Arg Asn Arg Leu Met Arg Asp Met  
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    805                                      810                                      815  
 Gln Gln Pro Lys Ala Gln Ser Ala Met Ser Pro Tyr Leu Val Pro Asp  
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 Thr Gln Ala Leu Cys His His Leu Pro Val Ile Arg Gln Leu Ala Thr  
    835                                      840                                      845  
 Ser Gly Arg Phe Ile Val Ile Ile Pro Arg Thr Val Ile Asp Gly Leu  
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 Asp Leu Leu Lys Lys Glu His Pro Gly Ala Arg Asp Gly Ile Arg Tyr  
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 Leu Glu Ala Glu Phe Lys Lys Gly Asn Arg Tyr Ile Arg Cys Gln Lys  
    885                                      890                                      895  
 Glu Val Gly Lys Ser Phe Glu Arg His Lys Leu Lys Arg Gln Asp Ala  
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    915                                      920                                      925  
 Leu Ala Gln Gly Ala Gly Glu Glu Asp Pro Ser Gly Met Val Thr Ile  
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 Ile Thr Gly Leu Pro Leu Asp Asn Pro Ser Val Leu Ser Gly Pro Met  
    945                                      950                                      955                                      960  
 Gln Ala Ala Leu Gln Ala Ala Ala His Ala Ser Val Asp Ile Lys Asn  
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985

<210> 2987  
 <211> 1016  
 <212> DNA  
 <213> Homo sapiens

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<210> 2988  
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 <212> PRT  
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<400> 2988  
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<210> 2990  
 <211> 114  
 <212> PRT  
 <213> Homo sapiens

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                   20                  25                  30  
 Trp Glu Glu Trp Gln Asp Leu Asp Asp Ala Gln Arg Thr Leu Tyr Arg  
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 Asp Val Met Leu Glu Thr Tyr Ser Ser Leu Val Ser Leu Gly His Cys  
                   50                  55                  60  
 Ile Thr Lys Pro Glu Met Ile Phe Lys Leu Glu Gln Gly Ala Glu Pro  
 65                  70                  75                  80  
 Trp Ile Val Glu Glu Thr Leu Asn Leu Arg Leu Ser Gly Gly Ser Lys  
                   85                  90                  95  
 Lys Gln Val Phe Ser Gly Ile Cys His Arg Ser Leu Val Glu Leu Gln  
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 Glu Val

<210> 2991  
 <211> 980  
 <212> DNA  
 <213> Homo sapiens

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<210> 2992  
 <211> 64  
 <212> PRT  
 <213> Homo sapiens

<400> 2992  
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<210> 2993  
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 <212> DNA  
 <213> Homo sapiens

<400> 2993  
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<210> 2994  
<211> 229  
<212> PRT  
<213> Homo sapiens

<400> 2994

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			20					25					30		
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		35					40					45			
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	50					55					60				
Thr	Thr	Val	Glu	Val	Ala	Trp	Cys	Glu	Leu	Gln	Thr	Arg	Lys	Leu	Ser
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Arg	Ala	Glu	Arg	Gln	Arg	Phe	Ser	Glu	Glu	Val	Glu	Met	Leu	Lys	Gly
				85					90					95	
Leu	Gln	His	Pro	Asn	Ile	Val	Arg	Phe	Tyr	Asp	Ser	Trp	Lys	Ser	Val
			100					105					110		
Leu	Arg	Gly	Gln	Val	Cys	Ile	Val	Leu	Val	Thr	Glu	Leu	Met	Thr	Ser
	115						120					125			
Gly	Thr	Leu	Lys	Thr	Tyr	Leu	Arg	Arg	Phe	Arg	Glu	Met	Lys	Pro	Arg
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Val	Leu	Gln	Arg	Trp	Ser	Arg	Gln	Ile	Leu	Arg	Gly	Leu	His	Phe	Leu
145					150					155					160
His	Ser	Arg	Val	Pro	Pro	Ile	Leu	His	Arg	Asp	Leu	Lys	Cys	Asp	Asn
				165					170					175	
Val	Phe	Ile	Thr	Gly	Pro	Thr	Gly	Ser	Val	Lys	Ile	Gly	Asp	Leu	Gly
		180					185					190			
Leu	Ala	Thr	Leu	Lys	Arg	Ala	Ser	Phe	Ala	Lys	Ser	Val	Ile	Gly	Thr
		195				200						205			
Pro	Glu	Phe	Met	Ala	Pro	Glu	Met	Tyr	Glu	Glu	Lys	Tyr	Asp	Glu	Ala
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Val	Asp	Val	Tyr	Ala											
225															

<210> 2995  
<211> 1879  
<212> DNA  
<213> Homo sapiens

<400> 2995

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240



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<210> 2996  
<211> 101  
<212> PRT  
<213> Homo sapiens

<400> 2996  
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Leu Xaa Thr Gln Ala Gly Ile Gln Trp Cys Asp Leu Ser Ser Leu Gln  
35 40 45  
Pro Pro Pro Pro Arg Phe Lys Arg Phe Ser Cys Leu Ser Leu Leu Ser  
50 55 60  
Ser Trp Asp Ser Asp Arg Cys Leu Pro Pro His Pro Gly Asp Phe Cys  
65 70 75 80  
Ile Phe Ser Arg Asp Gly Val Ser Pro Cys Cys Ser Gly Trp Ser Arg  
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Thr Pro Asp Leu Lys  
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<210> 2997  
<211> 800  
<212> DNA  
<213> Homo sapiens

<400> 2997  
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120  
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<210> 2998  
 <211> 266  
 <212> PRT  
 <213> Homo sapiens

<400> 2998  
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 35 40 45  
 Ile Thr Arg Ile Glu Met Glu Ser Thr Ser Thr Leu Thr Pro Thr Pro  
 50 55 60  
 Arg Glu Thr Ser Thr Ser Gln Glu Ile His Ser Ala Thr Lys Pro Ser  
 65 70 75 80  
 Thr Val Pro Tyr Lys Ala Leu Thr Ser Ala Thr Ile Glu Asp Ser Met  
 85 90 95  
 Thr Gln Val Met Ser Ser Ser Arg Gly Pro Ser Pro Asp Gln Ser Thr  
 100 105 110  
 Met Ser Gln Asp Ile Ser Thr Glu Val Ile Thr Arg Leu Ser Thr Ser  
 115 120 125  
 Pro Ile Lys Thr Glu Ser Thr Glu Met Thr Ile Thr Thr Gln Thr Gly  
 130 135 140  
 Ser Pro Gly Ala Thr Ser Arg Gly Thr Leu Thr Leu Asp Thr Ser Thr  
 145 150 155 160  
 Thr Phe Met Ser Gly Thr His Ser Thr Ala Ser Gln Arg Phe Ser His  
 165 170 175  
 Ser Gln Met Thr Ala Leu Met Ser Arg Thr Pro Gly Asp Val Pro Trp  
 180 185 190  
 Leu Thr His Pro Ser Gly Glu Glu Pro Ala Ser Ala Ser Phe Ser Leu  
 195 200 205  
 Ala Ser Pro Val Leu Thr Ser Phe Phe Ser Phe Phe Ala His Ser Gln  
 210 215 220  
 Lys Pro Pro Pro Phe Leu Val Pro Gly Gln Thr Phe Ser Leu Gly Leu  
 225 230 235 240  
 Gly Lys Pro Lys Met Trp Gly Gln Pro Arg Thr Glu Thr Phe Pro Pro  
 245 250 255  
 Met Asp Asn Leu Phe Glu Lys Gly Pro Phe  
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<210> 2999  
 <211> 550  
 <212> DNA  
 <213> Homo sapiens

<400> 2999  
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 180  
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 240  
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 420  
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<210> 3000

<211> 167

<212> PRT

<213> Homo sapiens

<400> 3000

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Val	Gln	Leu	Val	Val	Leu	Ile	Ser	Ala	Gln	Leu	Trp	Leu	Ser	Pro	Gly
			20					25					30		
Ala	Phe	Met	Gly	Leu	Arg	Gly	Glu	Lys	Val	His	Ala	Asn	Ser	Ser	Met
		35					40				45				
Gly	Gly	His	Gly	Trp	Ala	Gln	Gly	Lys	Ala	Pro	Gln	Val	Ala	Leu	Ala
	50					55					60				
Val	Ser	Gly	Thr	Gly	Asp	Pro	Ser	Pro	Arg	Leu	Gln	Ala	Phe	Pro	Gly
65					70					75				80	
Leu	Glu	Val	Gly	Leu	His	Cys	Gly	Pro	Ala	Ser	Phe	His	Pro	Gly	Ala
			85						90					95	
Cys	Leu	Pro	Pro	Ala	Ala	Val	His	Gly	Asp	Gln	Ala	Val	His	Val	Lys
			100						105					110	
Gly	Cys	Leu	Gln	Ala	Ser	Thr	Gly	Leu	Ser	Ser	Val	His	Pro	Ser	Ala
			115				120					125			
Ser	Phe	Pro	Cys	Leu	Ser	Val	Pro	Lys	Ala	Trp	Arg	Gly	Pro	Lys	Trp
	130					135					140				
Gln	Gly	Gly	Trp	His	Val	Ser	Thr	Thr	Pro	Ser	Met	Cys	Thr	Leu	Ser
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Trp	Ala	Val	Thr	Ala	Pro	Gly									
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<210> 3001

<211> 1092

<212> DNA

<213> Homo sapiens

<400> 3001

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<210> 3002

<211> 115

<212> PRT

<213> Homo sapiens

<400> 3002

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Trp	Leu	Ser	Leu	Lys	Gly	His	Cys	Ser	Val	Ser	Ala	Leu	Arg	Cys	Leu
			20					25					30		
Glu	Val	Gln	Arg	Leu	Ser	Pro	Tyr	Val	Cys	Leu	Gly	Glu	Ser	Gln	Lys
		35					40				45				
Val	Glu	Ser	Gln	Pro	Cys	Ser	Ala	His	Gln	Cys	Phe	Phe	Tyr	Asn	Pro
	50				55				60						
Asp	Ile	Ala	Lys	Thr	Ala	Val	Pro	Thr	Glu	Ala	Ser	Ser	Pro	Ala	Gln

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65              70              75              80
Ala Leu Pro Pro Xaa Ser Thr Lys Ala Ser Leu Ser Gly Lys Gly Tyr
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Glu Arg Ser
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<210> 3003  
 <211> 474  
 <212> DNA  
 <213> Homo sapiens

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 <212> PRT  
 <213> Homo sapiens

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Phe Thr Phe Asp Asp Ala Gln Gln Glu Asp Arg Lys Arg Leu Ala Glu
35     40     45
Leu Leu Val Ser Val Leu Glu Gln Gly Leu Pro Pro Ser His Arg Val
50     55     60
Ile Trp Leu Gln Ser Val Arg Ile Leu Ser Arg Asp Arg Asn Cys Leu
65     70     75     80
Asp Pro Phe Thr Ser Arg Gln Ser Leu Gln Ala Leu Ala Cys Tyr Ala
85     90     95
Asp Ile Ser Val Ser Glu Gly Ser Val Pro Glu Ser Ala Asp Met Asp
100    105    110
Val Val Leu Glu Ser Leu Lys Cys Leu Cys Asn Leu Val Leu Ser Ser
115    120    125
Pro Val Ala Gln Met Leu Ala Ala Glu Ala Arg Leu Val Val Lys Leu

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<210> 3005  
 <211> 799  
 <212> DNA  
 <213> Homo sapiens

<400> 3005  
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 780  
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<210> 3006  
 <211> 266  
 <212> PRT  
 <213> Homo sapiens

<400> 3006  
 Val His Ser Val Val Asn His Thr Pro Ser Gln Leu Leu Lys Glu Val  
 1 5 10 15  
 Ile Leu Val Asp Asp Asn Ser Asp Asn Val Glu Leu Lys Phe Asn Leu  
 20 25 30  
 Asp Gln Tyr Val Asn Lys Arg Tyr Pro Gly Leu Val Lys Ile Val Arg  
 35 40 45  
 Asn Ser Arg Arg Glu Gly Leu Ile Arg Ala Arg Leu Gln Gly Trp Lys  
 50 55 60  
 Ala Ala Thr Ala Pro Val Val Gly Phe Phe Asp Ala His Val Glu Phe

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65          70          75          80
Asn Thr Gly Trp Ala Glu Pro Ala Leu Ser Arg Ile Arg Glu Asp Arg
      85          90          95
Arg Arg Ile Val Leu Pro Ala Ile Asp Asn Ile Lys Tyr Ser Thr Phe
      100         105         110
Glu Val Gln Gln Tyr Ala Asn Ala Ala His Gly Tyr Asn Trp Gly Leu
      115         120         125
Trp Cys Met Tyr Ile Ile Pro Pro Gln Asp Trp Leu Asp Arg Gly Asp
      130         135         140
Glu Ser Ala Pro Ile Arg Thr Pro Ala Met Ile Gly Cys Ser Phe Val
      145         150         155         160
Val Asp Arg Glu Tyr Phe Gly Asp Ile Gly Leu Leu Asp Pro Gly Met
      165         170         175
Glu Val Tyr Gly Gly Glu Asn Val Glu Leu Gly Met Arg Val Trp Gln
      180         185         190
Cys Gly Gly Ser Met Glu Val Leu Pro Cys Ser Arg Val Ala His Ile
      195         200         205
Glu Arg Thr Arg Lys Pro Tyr Asn Asn Asp Ile Asp Tyr Tyr Ala Lys
      210         215         220
Arg Asn Ala Leu Arg Thr Ala Glu Val Trp Met Asp Asp Phe Lys Ser
      225         230         235         240
His Val Tyr Met Ala Trp Asn Ile Pro Met Ser Asn Pro Gly Val Asp
      245         250         255
Phe Gly Asp Val Ser Glu Arg Leu Ala Leu
      260         265

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&lt;210&gt; 3007

&lt;211&gt; 536

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3007

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60
tatacctgca aatctggagc tcatggtatt ggtgatgtgg aaacagctgt aaaatttgca
120
actcagctta ttgacctggg agcagacatt agtttgcgga gtcgctggac aaacatgaat
180
gctttgcatt atgctgctta ttttgatgtc cctgaactta taagagtgat tttgaaaaca
240
tcgaaaccaa aagatgtgga tgccccttgc agtgatttta attttggaac agctttgcat
300
attgcagcat acaacttgtg tgcaggtgct gtgaagtgcc tcttggagca gggagcaaat
360
cctgcattta ggaatgacaa aggacagatc cctgctgatg ttgttcaga cccagtagat
420
atgccgttag agatggctga cgccgcagcc actgctaagg aaatcaagca gatgcttcta
480
gatgcggtgc ctctgtcatg taacatctca aaggccatgc tcccccttc acgcgt
536

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&lt;210&gt; 3008

&lt;211&gt; 163

&lt;212&gt; PRT



&lt;213&gt; Homo sapiens

&lt;400&gt; 3008

```

Met Thr Leu Leu His Tyr Thr Cys Lys Ser Gly Ala His Gly Ile Gly
 1           5           10           15
Asp Val Glu Thr Ala Val Lys Phe Ala Thr Gln Leu Ile Asp Leu Gly
      20           25           30
Ala Asp Ile Ser Leu Arg Ser Arg Trp Thr Asn Met Asn Ala Leu His
      35           40           45
Tyr Ala Ala Tyr Phe Asp Val Pro Glu Leu Ile Arg Val Ile Leu Lys
      50           55           60
Thr Ser Lys Pro Lys Asp Val Asp Ala Pro Cys Ser Asp Phe Asn Phe
65           70           75           80
Gly Thr Ala Leu His Ile Ala Ala Tyr Asn Leu Cys Ala Gly Ala Val
      85           90           95
Lys Cys Leu Leu Glu Gln Gly Ala Asn Pro Ala Phe Arg Asn Asp Lys
      100          105          110
Gly Gln Ile Pro Ala Asp Val Val Pro Asp Pro Val Asp Met Pro Leu
      115          120          125
Glu Met Ala Asp Ala Ala Ala Thr Ala Lys Glu Ile Lys Gln Met Leu
      130          135          140
Leu Asp Ala Val Pro Leu Ser Cys Asn Ile Ser Lys Ala Met Leu Pro
145          150          155          160
Pro Ser Arg

```

&lt;210&gt; 3009

&lt;211&gt; 1335

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3009

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nnacgcgtca gtctggaaaag ggcacttata agagctacca gctgccctgt tggcttcgct
60
ggctcgatcg tcttcctggc cccgccaaac aggcggggggg agcggccccc actgtggggc
120
catggcagta gtctcctcgt tctccgccgc cgctagccta gctgagtcgc cggcttctgc
180
gctagggggt cccaccgcct ccgcaggcta aggagccgct gccaccaacg agctgtgagg
240
gttactatgc tccctctttg ccgcgcgtct ctcctcttgc ccgcgcaggc acccctctgg
300
ctgctcagtc ctgcctcagt gtcaaaccag aagagaagta aaattcaaca aaaatttatg
360
tgtggagttc cttcttaaaa gaagaaaaaa gtgattattt agactatgga tcggagcaaa
420
cggaattcaa ttgcaggatt tctccacgt gtggagcgtc ttgaagagtt tgaaggaggt
480
ggtggaggag aaggaaatgt gagccagggt ggaagagttt ggccatcttc gtatcgagct
540
cttataagtg ccttttccag actgacgcgt ttggatgatt tcacctgtaa aaaaataggg
600
tctggcttct tttctgaagt gttcaaggta cgacaccgag cttctgggtca ggtgatggct
660

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ctttaagatga acacattgag cagtaaccgg gcaaacatgc tgaaagaagt acagctcatg  
 720  
 aatagactct cccatcccaa catccttagg ttcattgggtg tatgtgttca tcaaggacaa  
 780  
 ttgcatgcac ttacagagta tatcaactcc gggaaacctgg aacagttgct agacagtaac  
 840  
 ctgcatttgc cttggactgt gagggtaaaa ctggcctatg acatagcagt gggcctcagc  
 900  
 taccttcact tcaaaggcat ttttcacgg gacctcacat ctaagaactg cctgataaag  
 960  
 agggatgaga atgggttactc tgcagtggta gctgactttg gcctggctga gaagatcccc  
 1020  
 gatgtcagca tggggagtga gaagctggcc gtggtgggtt cccattctg gatggcacct  
 1080  
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 1200  
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 1320  
 tggctgaacc ctttt  
 1335

<210> 3010

<211> 310

<212> PRT

<213> Homo sapiens

<400> 3010

Met	Asp	Arg	Ser	Lys	Arg	Asn	Ser	Ile	Ala	Gly	Phe	Pro	Pro	Arg	Val
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Glu	Arg	Leu	Glu	Phe	Glu	Gly	Gly	Gly	Gly	Gly	Glu	Gly	Asn	Val	
			20					25					30		
Ser	Gln	Val	Gly	Arg	Val	Trp	Pro	Ser	Ser	Tyr	Arg	Ala	Leu	Ile	Ser
			35					40				45			
Ala	Phe	Ser	Arg	Leu	Thr	Arg	Leu	Asp	Asp	Phe	Thr	Cys	Lys	Lys	Ile
			50					55			60				
Gly	Ser	Gly	Phe	Phe	Ser	Glu	Val	Phe	Lys	Val	Arg	His	Arg	Ala	Ser
						70				75				80	
Gly	Gln	Val	Met	Ala	Leu	Lys	Met	Asn	Thr	Leu	Ser	Ser	Asn	Arg	Ala
				85					90					95	
Asn	Met	Leu	Lys	Glu	Val	Gln	Leu	Met	Asn	Arg	Leu	Ser	His	Pro	Asn
				100					105					110	
Ile	Leu	Arg	Phe	Met	Gly	Val	Cys	Val	His	Gln	Gly	Gln	Leu	His	Ala
				115				120				125			
Leu	Thr	Glu	Tyr	Ile	Asn	Ser	Gly	Asn	Leu	Glu	Gln	Leu	Leu	Asp	Ser
							135				140				
Asn	Leu	His	Leu	Pro	Trp	Thr	Val	Arg	Val	Lys	Leu	Ala	Tyr	Asp	Ile
							150				155			160	
Ala	Val	Gly	Leu	Ser	Tyr	Leu	His	Phe	Lys	Gly	Ile	Phe	His	Arg	Asp
							165				170			175	
Leu	Thr	Ser	Lys	Asn	Cys	Leu	Ile	Lys	Arg	Asp	Glu	Asn	Gly	Tyr	Ser

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                180                185                190
Ala Val Val Ala Asp Phe Gly Leu Ala Glu Lys Ile Pro Asp Val Ser
                195                200                205
Met Gly Ser Glu Lys Leu Ala Val Val Gly Ser Pro Phe Trp Met Ala
                210                215                220
Pro Glu Val Leu Arg Asp Glu Pro Tyr Asn Glu Lys Ala Asp Val Phe
225                230                235                240
Ser Tyr Gly Ile Ile Leu Cys Glu Ile Ile Val Arg Ile Gln Ala Asp
                245                250                255
Pro Asp Tyr Leu Pro Arg Thr Glu Asn Phe Gly Leu Asp Tyr Asp Ala
                260                265                270
Phe Gln His Met Val Gly Asp Cys Pro Pro Asp Phe Leu Gln Leu Thr
                275                280                285
Phe Asn Cys Cys Asn Val Ser Val Phe Leu Pro Leu Pro Phe Ile Arg
                290                295                300
Gly Trp Leu Asn Pro Phe
305                310

```

&lt;210&gt; 3011

&lt;211&gt; 3253

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3011

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gcacgcggcc cgggcagctc ggtgtgcgcc cccgcgagag ccggggcccc aggcccgccg
120
gacaccatga accacctgaa cgtgctggcc aaagcgctct atgacaatgt ggccgagtcc
180
ccgatgagc tctccttccg caagggtgac atcatgacgg tgctggagca ggacacgcag
240
ggcctggacg gctggtggct ctgctcgctg catgggcgcc agggcatcgt gcctgggaac
300
cgctcaaga tcttgggtggg catgtatgat aagaagccag cagggcctgg ctccggccct
360
cccgccaccc cggcccagcc tcagcctggc ctccatgccc cagcgccctcc ggccctcccag
420
tacacgcccc tgctcccaa cacctaccag ccccgaccag acagcgtcta cctggtgccc
480
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540
tctccccag ccaagcagac atccaccttc tcgaagcaga cccccatca cccgtttccc
600
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720
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780
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840
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900

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cccagccagt atggccagga ggtgtatgac acacccccca tggctgtcaa gggccccaat  
960  
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1020  
ccgtccaacc accacgcagt ctacgacgtt cctccatcgg tgagcaagga tgtgcccgat  
1080  
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1140  
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1320  
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2220  
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2460  
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2520

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 3180  
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 3240  
 aaaaaaaaaa aaa  
 3253

&lt;210&gt; 3012

&lt;211&gt; 870

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3012

Met	Asn	His	Leu	Asn	Val	Leu	Ala	Lys	Ala	Leu	Tyr	Asp	Asn	Val	Ala
1			5					10						15	
Glu	Ser	Pro	Asp	Glu	Leu	Ser	Phe	Arg	Lys	Gly	Asp	Ile	Met	Thr	Val
		20						25					30		
Leu	Glu	Gln	Asp	Thr	Gln	Gly	Leu	Asp	Gly	Trp	Trp	Leu	Cys	Ser	Leu
		35				40						45			
His	Gly	Arg	Gln	Gly	Ile	Val	Pro	Gly	Asn	Arg	Leu	Lys	Ile	Leu	Val
	50				55					60					
Gly	Met	Tyr	Asp	Lys	Lys	Pro	Ala	Gly	Pro	Gly	Ser	Gly	Pro	Pro	Ala
65				70					75				80		
Thr	Pro	Ala	Gln	Pro	Gln	Pro	Gly	Leu	His	Ala	Pro	Ala	Pro	Pro	Ala
			85					90					95		
Ser	Gln	Tyr	Thr	Pro	Met	Leu	Pro	Asn	Thr	Tyr	Gln	Pro	Gln	Pro	Asp
		100						105					110		
Ser	Val	Tyr	Leu	Val	Pro	Thr	Pro	Ser	Lys	Ala	Gln	Gln	Gly	Leu	Tyr
	115					120					125				
Gln	Val	Pro	Gly	Pro	Ser	Pro	Gln	Phe	Gln	Ser	Pro	Pro	Ala	Lys	Gln
	130					135					140				
Thr	Ser	Thr	Phe	Ser	Lys	Gln	Thr	Pro	His	His	Pro	Phe	Pro	Ser	Pro
145				150					155				160		
Ala	Thr	Asp	Leu	Tyr	Gln	Val	Pro	Pro	Gly	Pro	Gly	Gly	Pro	Ala	Gln

```

      165      170      175
Asp Ile Tyr Gln Val Pro Pro Ser Ala Gly Met Gly His Asp Ile Tyr
      180      185      190
Gln Val Pro Pro Ser Met Asp Thr Arg Ser Trp Glu Gly Thr Lys Pro
      195      200      205
Pro Ala Lys Val Val Val Pro Thr Arg Val Gly Gln Gly Tyr Val Tyr
      210      215      220
Glu Ala Ala Gln Pro Glu Gln Asp Glu Tyr Asp Ile Pro Arg His Leu
225      230      235      240
Leu Ala Pro Gly Pro Gln Asp Ile Tyr Asp Val Pro Pro Val Arg Gly
      245      250      255
Leu Leu Pro Ser Gln Tyr Gly Gln Glu Val Tyr Asp Thr Pro Pro Met
      260      265      270
Ala Val Lys Gly Pro Asn Gly Arg Asp Pro Leu Leu Glu Val Tyr Asp
      275      280      285
Val Pro Pro Ser Val Glu Lys Gly Leu Pro Pro Ser Asn His His Ala
      290      295      300
Val Tyr Asp Val Pro Pro Ser Val Ser Lys Asp Val Pro Asp Gly Pro
305      310      315      320
Leu Leu Arg Glu Glu Thr Tyr Asp Val Pro Pro Ala Phe Ala Lys Ala
      325      330      335
Lys Pro Phe Asp Pro Ala Arg Thr Pro Leu Val Leu Gly Ala Pro Pro
      340      345      350
Pro Asp Ser Pro Pro Ala Glu Asp Val Tyr Tyr Val Pro Pro Pro Ala
      355      360      365
Pro Asp Leu Tyr Asp Val Pro Pro Gly Leu Arg Arg Pro Gly Pro Gly
      370      375      380
Thr Leu Tyr Asp Val Pro Arg Glu Arg Val Leu Pro Pro Glu Val Ala
385      390      395      400
Asp Gly Gly Val Val Asp Ser Gly Val Tyr Ala Val Pro Pro Pro Ala
      405      410      415
Glu Arg Glu Ala Pro Ala Glu Gly Lys Arg Leu Ser Ala Ser Ser Thr
      420      425      430
Gly Ser Thr Arg Ser Ser Gln Ser Ala Ser Ser Leu Glu Val Ala Gly
      435      440      445
Pro Gly Arg Glu Pro Leu Glu Leu Glu Val Ala Val Glu Ala Leu Ala
      450      455      460
Arg Leu Gln Gln Gly Val Ser Ala Thr Val Ala His Leu Leu Asp Leu
465      470      475      480
Ala Gly Ser Ala Gly Ala Thr Gly Gly Trp Arg Ser Pro Ser Glu Pro
      485      490      495
Gln Glu Pro Leu Val Gln Asp Leu Gln Ala Ala Val Ala Ala Val Gln
      500      505      510
Ser Ala Val His Glu Leu Leu Glu Phe Ala Arg Ser Ala Val Gly Asn
      515      520      525
Ala Ala His Thr Ser Asp Arg Ala Leu His Ala Lys Leu Ser Arg Gln
      530      535      540
Leu Gln Lys Met Glu Asp Val His Gln Thr Leu Val Ala His Gly Gln
545      550      555      560
Ala Leu Asp Ala Gly Arg Gly Gly Ser Gly Ala Thr Leu Glu Asp Leu
      565      570      575
Asp Arg Leu Val Ala Cys Ser Arg Ala Val Pro Glu Asp Ala Lys Gln
      580      585      590
Leu Ala Ser Phe Leu His Gly Asn Ala Ser Leu Leu Phe Arg Arg Thr

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595                      600                      605  
 Lys Ala Thr Ala Pro Gly Pro Glu Gly Gly Gly Thr Leu His Pro Asn  
 610                      615                      620  
 Pro Thr Asp Lys Thr Ser Ser Ile Gln Ser Arg Pro Leu Pro Ser Pro  
 625                      630                      635                      640  
 Pro Lys Phe Thr Ser Gln Asp Ser Pro Asp Gly Gln Tyr Glu Asn Ser  
 645                      650                      655  
 Glu Gly Gly Trp Met Glu Asp Tyr Asp Tyr Val His Leu Gln Gly Lys  
 660                      665                      670  
 Glu Glu Phe Glu Lys Thr Gln Lys Glu Leu Leu Glu Lys Gly Asn Ile  
 675                      680                      685  
 Thr Arg Gln Gly Lys Ser Gln Leu Glu Leu Gln Gln Leu Lys Gln Phe  
 690                      695                      700  
 Glu Arg Leu Glu Gln Glu Val Ser Arg Pro Ile Asp His Asp Leu Ala  
 705                      710                      715                      720  
 Asn Trp Thr Pro Ala Gln Pro Leu Ala Pro Gly Arg Thr Gly Gly Leu  
 725                      730                      735  
 Gly Pro Ser Asp Arg Gln Leu Leu Leu Phe Tyr Leu Glu Gln Cys Glu  
 740                      745                      750  
 Ala Asn Leu Thr Thr Leu Thr Asn Ala Val Asp Ala Phe Phe Thr Ala  
 755                      760                      765  
 Val Ala Thr Asn Gln Pro Pro Lys Ile Phe Val Ala His Ser Lys Phe  
 770                      775                      780  
 Val Ile Leu Ser Ala His Lys Leu Val Phe Ile Gly Asp Thr Leu Ser  
 785                      790                      795                      800  
 Arg Gln Ala Lys Ala Ala Asp Val Arg Ser Gln Val Thr His Tyr Ser  
 805                      810                      815  
 Asn Leu Leu Cys Asp Leu Leu Arg Gly Ile Val Ala Thr Thr Lys Ala  
 820                      825                      830  
 Ala Ala Leu Gln Tyr Pro Ser Pro Ser Ala Ala Gln Asp Met Val Glu  
 835                      840                      845  
 Arg Val Lys Glu Leu Gly His Ser Thr Gln Gln Phe Arg Arg Val Leu  
 850                      855                      860  
 Gly Gln Leu Ala Ala Ala  
 865                      870

&lt;210&gt; 3013

&lt;211&gt; 248

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3013

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 gaagaatcgg catcctttga cctgactccc catgacctgg cttcaggact ggacgtcata  
 120  
 gaccaggtgc tggaggagca gaccaaggca ggcgagcagg ctgggtgggg cctcctcctt  
 180  
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 240  
 atcgatgc  
 248

&lt;210&gt; 3014

<211> 82  
 <212> PRT  
 <213> Homo sapiens

<400> 3014  
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 Glu Lys Met Cys Glu Glu Ser Ala Ser Phe Asp Leu Thr Pro His Asp  
 20 25 30  
 Leu Ala Ser Gly Leu Asp Val Ile Asp Gln Val Leu Glu Glu Gln Thr  
 35 40 45  
 Lys Ala Ala Gln Gln Ala Gly Trp Gly Leu Leu Leu Ala Arg Arg Trp  
 50 55 60  
 Val Ala Pro Pro Arg Pro Thr Val Ile Leu Leu Arg Leu Glu Gly Ala  
 65 70 75 80  
 Ile Asp

<210> 3015  
 <211> 438  
 <212> DNA  
 <213> Homo sapiens

<400> 3015  
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 120  
 ccggagaagc attttcacaa ctaaacttga cctgaccag ctgcacggtg actggtcca  
 180  
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 240  
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 300  
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 420  
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 438

<210> 3016  
 <211> 103  
 <212> PRT  
 <213> Homo sapiens

<400> 3016  
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 <211> 104  
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 <213> Homo sapiens

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 35 40 45  
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882

&lt;210&gt; 3020

&lt;211&gt; 58

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3020

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			20					25				30			
Asp	Pro	Ala	Arg	Pro	Arg	Phe	Leu	Ala	Cys	His	His	Arg	Gln	Thr	Cys
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Gln	Pro	Leu	Pro	Ala	Gly	Leu	Pro	Gly	Arg						
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&lt;210&gt; 3021

&lt;211&gt; 1008

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3021

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 <212> PRT  
 <213> Homo sapiens

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 35 40 45  
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<210> 3023  
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 <212> DNA  
 <213> Homo sapiens

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&lt;210&gt; 3024

&lt;211&gt; 347

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3024

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      35          40          45
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Asp His Pro His Ala Leu Glu Phe Leu Arg Lys Asp Cys Ala Asn Val
      130          135          140
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Leu Phe Glu Phe Val Thr Asp Pro Ser Ile Thr His Glu Asn Met Asp
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Ala Tyr Leu Ser Lys Ala Met Glu Ile Ala Ser Gln Arg Thr Lys Glu
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Glu Arg Ser Ser Gln Asp His Val Asp Glu Glu Val Phe Lys Arg Ala
      195          200          205
Tyr Ile Pro Arg Thr Leu Asn Glu Val Lys Asn Tyr Glu Arg Asp Met
      210          215          220
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      260          265          270
Thr Cys Ser Asp Ser Glu Asp Ile Gly Ser Ser Glu Cys Ser Asp Thr
      275          280          285
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      290          295          300
Asp Pro Asp Ile Asp Lys Lys Glu Arg Lys Lys Met Val Lys Glu Ala
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Gln Arg Glu Lys Arg Lys Asn Lys Ile Pro Lys His Val Lys Lys Arg
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Lys Glu Lys Thr Ala Lys Thr Lys Lys Gly Lys
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&lt;210&gt; 3025

&lt;211&gt; 1370

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens



&lt;400&gt; 3025

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&lt;210&gt; 3026

&lt;211&gt; 152

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3026

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 Trp Glu Glu Tyr Ile Ser Ala Glu Asn Gly Lys Ala Pro His Leu Gly  
 35 40 45  
 Arg Glu Leu Val Cys Lys Glu Ser Lys Lys Thr Phe Lys Ala Thr Ile  
 50 55 60  
 Ala Met Ser Gln Glu Phe Pro Leu Gly Ile Glu Leu Leu Leu Asn Val  
 65 70 75 80  
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 Val Gln Met Lys Leu Pro Pro Gly Phe Pro Val Lys Leu Asp Ile Pro  
 100 105 110  
 Val Phe Pro Thr Ile Thr Ala Thr Val Thr Phe Gln Glu Phe Arg Tyr  
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 130 135 140  
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&lt;210&gt; 3027

&lt;211&gt; 1154

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3027

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 720  
 aaagaagcta atgtatacca tgctagcaca gcaaatggag agagcagagc aatcaaaatt  
 780

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 900  
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 1154

<210> 3028  
 <211> 331  
 <212> PRT  
 <213> Homo sapiens

<400> 3028  
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 Lys Glu Lys Asp Asp Ile Leu Phe Glu Asp Leu Gln Asp Asn Val Asn  
 35 40 45  
 Glu Asn Gly Glu Gly Glu Ile Glu Asp Glu Glu Glu Glu Gly Tyr Asp  
 50 55 60  
 Asp Asp Asp Asp Asp Trp Asp Trp Asp Glu Gly Val Gly Lys Leu Ala  
 65 70 75 80  
 Lys Gly Tyr Val Trp Asn Gly Gly Ser Asn Pro Gln Ala Asn Arg Gln  
 85 90 95  
 Thr Ser Asp Ser Ser Ser Ala Lys Met Ser Thr Pro Ala Asp Lys Val  
 100 105 110  
 Leu Arg Lys Phe Glu Asn Lys Ile Asn Leu Asp Lys Leu Asn Val Thr  
 115 120 125  
 Asp Ser Val Ile Asn Lys Val Thr Glu Lys Ser Arg Gln Lys Glu Ala  
 130 135 140  
 Asp Met Tyr Arg Ile Lys Asp Lys Ala Asp Arg Ala Thr Val Glu Gln  
 145 150 155 160  
 Val Leu Asp Pro Arg Thr Arg Met Ile Leu Phe Lys Met Leu Thr Arg  
 165 170 175  
 Gly Ile Ile Thr Glu Ile Asn Gly Cys Ile Ser Thr Gly Lys Glu Ala  
 180 185 190  
 Asn Val Tyr His Ala Ser Thr Ala Asn Gly Glu Ser Arg Ala Ile Lys  
 195 200 205  
 Ile Tyr Lys Thr Ser Ile Leu Val Phe Lys Asp Arg Asp Lys Tyr Val  
 210 215 220  
 Ser Gly Glu Phe Arg Phe Arg His Gly Tyr Cys Lys Gly Asn Pro Arg  
 225 230 235 240  
 Lys Met Val Lys Thr Trp Ala Glu Lys Glu Met Arg Asn Leu Ile Arg  
 245 250 255  
 Leu Asn Thr Ala Glu Ile Pro Cys Pro Glu Pro Ile Met Leu Arg Ser

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                260                265                270
His Val Leu Val Met Ser Phe Ile Gly Lys Asp Asp Ile Ser Phe His
      275                280                285
Ser Arg Pro Ala Pro Leu Leu Lys Asn Val Gln Leu Ser Glu Ser Lys
      290                295                300
Ala Arg Glu Leu Tyr Leu Gln Val Ile Gln Tyr Met Arg Arg Met Tyr
305                310                315                320
Gln Asp Ala Arg Leu Val His Ala Asp Arg Arg
      325                330

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&lt;210&gt; 3029

&lt;211&gt; 344

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3029

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180
cagactgaaa gttgcactga caggggagca gaaaatgaag gtagttgtca cagtgatcag
240
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344

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&lt;210&gt; 3030

&lt;211&gt; 114

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3030

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Thr Arg Asp Ala Arg Lys Gly Leu Arg Phe Leu His Phe Pro Tyr Leu
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Leu Thr Leu Gln Leu Lys Arg Phe Asp Phe Asp Tyr Thr Thr Met His
      20      25      30
Arg Ile Lys Leu Asn Asp Arg Met Thr Phe Pro Glu Glu Leu Asp Met
      35      40      45
Ser Thr Phe Ile Asp Val Glu Asp Glu Lys Ser Pro Gln Thr Glu Ser
      50      55      60
Cys Thr Asp Arg Gly Ala Glu Asn Glu Gly Ser Cys His Ser Asp Gln
65      70      75      80
Met Ser Asn Asp Phe Ser Asn Asp Asp Gly Val Asp Glu Gly Ile Cys
      85      90      95
Phe Glu Thr Asn Ser Gly Thr Glu Lys Ile Ser Lys Ser Gly Pro Glu
100      105      110
Lys Asn

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&lt;210&gt; 3031

&lt;211&gt; 567

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3031

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 120  
 gttggtcctg atgttatcc cctgccacac atctacggag ctgcaatcaa aggtgtggaa  
 180  
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 240  
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 300  
 ctgggctgca cacaagtgc tcaagatggg gacattccta acatacctgc cgaagaaaaa  
 360  
 gcatccacct caactcccag ttcaaccctg gtgcgtccta tcagaagccg gagagccctc  
 420  
 ccacccttga ggaccaggtc gaagagtgc cctgtgctcc atccttctga ggagagagct  
 480  
 gccccagtgc tcagctgtga agctgcaaca cagactgaaa ggagactgga tctggctgca  
 540  
 gtgactctga ggagaggctt gagatct  
 567

&lt;210&gt; 3032

&lt;211&gt; 189

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3032

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1				5				10					15		
Val	Pro	Pro	Val	Pro	Pro	Pro	Ser	Tyr	Phe	Ala	Thr	Phe	Tyr	Ser	Cys
			20					25					30		
Thr	Pro	Arg	Met	Asn	Arg	Arg	Leu	Val	Gly	Pro	Asp	Val	Ile	Pro	Leu
		35					40					45			
Pro	His	Ile	Tyr	Gly	Ala	Arg	Ile	Lys	Gly	Val	Glu	Val	Phe	Cys	Pro
	50					55				60					
Leu	Asp	Pro	Pro	Pro	Pro	Tyr	Glu	Ala	Val	Val	Ser	Gln	Met	Asp	Gln
65					70				75					80	
Glu	Gln	Gly	Ser	Ser	Phe	Gln	Met	Ser	Glu	Gly	Ser	Glu	Ala	Ala	Val
			85					90					95		
Ile	Pro	Leu	Asp	Leu	Gly	Cys	Thr	Gln	Val	Thr	Gln	Asp	Gly	Asp	Ile
			100					105					110		
Pro	Asn	Ile	Pro	Ala	Glu	Glu	Asn	Ala	Ser	Thr	Ser	Thr	Pro	Ser	Ser
	115						120					125			
Thr	Leu	Val	Arg	Pro	Ile	Arg	Ser	Arg	Arg	Ala	Leu	Pro	Pro	Leu	Arg
	130					135					140				
Thr	Arg	Ser	Lys	Ser	Asp	Pro	Val	Leu	His	Pro	Ser	Glu	Glu	Arg	Ala
145					150				155					160	
Ala	Pro	Val	Leu	Ser	Cys	Glu	Ala	Ala	Thr	Gln	Thr	Glu	Arg	Arg	Leu
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180

185

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 <212> DNA  
 <213> Homo sapiens

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 180  
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 240  
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 300  
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 360  
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 420  
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 480  
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 720  
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<210> 3034  
 <211> 221  
 <212> PRT  
 <213> Homo sapiens

<400> 3034  
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 Trp Glu Lys Arg Leu Ala Lys Lys Tyr Tyr Asp Lys Leu Phe Lys Glu  
 35 40 45  
 Tyr Cys Ile Ala Asp Leu Ser Lys Tyr Lys Glu Asn Lys Phe Gly Phe  
 50 55 60  
 Arg Trp Arg Val Glu Lys Glu Val Ile Ser Gly Lys Gly Gln Phe Phe  
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<210> 3035
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<212> DNA
<213> Homo sapiens
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2259

<210> 3036  
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 <212> PRT  
 <213> Homo sapiens

<400> 3036  
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 1 5 10 15  
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 20 25 30  
 Ser Ser Asn Ser Pro Asp Pro His Ser Gly Pro Ala Pro Ser Gln Thr  
 35 40 45  
 Val Ile Leu Phe Leu Glu Gly Asn Arg Asp Pro Gly Gly Arg Gly Trp  
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 Pro  
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<210> 3037  
 <211> 3538  
 <212> DNA  
 <213> Homo sapiens

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 420  
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 900



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 3538

&lt;210&gt; 3038

&lt;211&gt; 697

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3038

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Cys	Met	Asn	Met	Asn	Thr	Lys	Ala	Asn	Arg	Lys	Lys	Leu	Val	Arg	Ala
		20					25					30			
Leu	Phe	Ile	Val	Pro	Arg	Gln	Arg	Leu	Asp	Leu	Leu	Pro	Phe	Tyr	Ala
	35					40					45				
Arg	Leu	Val	Ala	Thr	Leu	His	Pro	Cys	Met	Ser	Asp	Val	Ala	Glu	Asp
	50				55					60					
Leu	Cys	Ser	Met	Leu	Arg	Gly	Asp	Phe	Arg	Phe	His	Val	Arg	Lys	Lys
65				70				75				80			
Asp	Gln	Ile	Asn	Ile	Glu	Thr	Lys	Asn	Lys	Thr	Val	Arg	Phe	Ile	Gly
		85				90					95				
Glu	Leu	Thr	Lys	Phe	Lys	Met	Phe	Thr	Lys	Asn	Asp	Thr	Leu	His	Cys

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100      105      110
Leu Lys Met Leu Leu Ser Asp Phe Ser His His His Ile Glu Met Ala
115      120      125
Cys Thr Leu Leu Glu Thr Cys Gly Arg Phe Leu Phe Arg Ser Pro Glu
130      135      140
Ser His Leu Arg Thr Ser Val Leu Leu Glu Gln Met Met Arg Lys Lys
145      150      155      160
Gln Ala Met His Leu Asp Ala Arg Tyr Val Thr Met Val Glu Asn Ala
165      170      175
Tyr Tyr Tyr Cys Asn Pro Pro Pro Ala Glu Lys Thr Val Lys Lys Lys
180      185      190
Arg Pro Pro Leu Gln Glu Tyr Val Arg Lys Leu Leu Tyr Lys Asp Leu
195      200      205
Ser Lys Val Thr Thr Glu Lys Val Leu Arg Gln Met Arg Lys Leu Pro
210      215      220
Trp Gln Asp Gln Glu Val Lys Asp Tyr Val Ile Cys Cys Met Ile Asn
225      230      235      240
Ile Trp Asn Val Lys Tyr Asn Ser Ile His Cys Val Ala Asn Leu Leu
245      250      255
Ala Gly Leu Val Leu Tyr Gln Glu Asp Val Gly Ile His Val Val Asp
260      265      270
Gly Val Leu Glu Asp Ile Arg Leu Gly Met Glu Val Asn Gln Pro Lys
275      280      285
Phe Asn Gln Arg Arg Ile Ser Ser Ala Lys Phe Leu Gly Glu Leu Tyr
290      295      300
Asn Tyr Arg Met Val Glu Ser Ala Val Ile Phe Arg Thr Leu Tyr Ser
305      310      315      320
Phe Thr Ser Phe Gly Val Asn Pro Asp Gly Ser Pro Ser Ser Leu Asp
325      330      335
Pro Pro Glu His Leu Phe Arg Ile Arg Leu Val Cys Thr Ile Leu Asp
340      345      350
Thr Cys Gly Gln Tyr Phe Asp Arg Gly Ser Ser Lys Arg Lys Leu Asp
355      360      365
Cys Phe Leu Val Tyr Phe Gln Arg Tyr Val Trp Trp Lys Lys Ser Leu
370      375      380
Glu Val Trp Thr Lys Asp His Pro Phe Pro Ile Asp Ile Asp Tyr Met
385      390      395      400
Ile Ser Asp Thr Leu Glu Leu Leu Arg Pro Lys Ile Lys Leu Cys Asn
405      410      415
Ser Leu Glu Glu Ser Ile Arg Gln Val Gln Asp Leu Glu Arg Glu Phe
420      425      430
Leu Ile Lys Leu Gly Leu Val Asn Asp Lys Asp Ser Lys Asp Phe Met
435      440      445
Thr Glu Gly Glu Asn Leu Glu Glu Asp Glu Glu Glu Glu Glu Gly Gly
450      455      460
Ala Glu Thr Glu Glu Gln Ser Gly Asn Glu Ser Glu Val Asn Glu Pro
465      470      475      480
Glu Glu Glu Glu Gly Ser Asp Asn Asp Asp Asp Glu Gly Glu Glu Glu
485      490      495
Glu Glu Glu Asn Thr Asp Tyr Leu Thr Asp Ser Asn Lys Glu Asn Glu
500      505      510
Thr Asp Glu Glu Asn Thr Glu Val Met Ile Lys Gly Gly Gly Leu Lys
515      520      525
His Val Pro Cys Val Glu Asp Glu Asp Phe Ile Gln Ala Leu Asp Lys

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530                      535                      540  
 Met Met Leu Glu Asn Leu Gln Gln Arg Ser Gly Glu Ser Val Lys Val  
 545                      550                      555                      560  
 His Gln Leu Asp Val Ala Ile Pro Leu His Leu Lys Ser Gln Leu Arg  
                     565                      570                      575  
 Lys Gly Pro Pro Leu Gly Gly Gly Glu Gly Glu Ala Glu Ser Ala Asp  
                     580                      585                      590  
 Thr Met Pro Phe Val Met Leu Thr Arg Lys Gly Asn Lys Gln Gln Phe  
                     595                      600                      605  
 Lys Ile Leu Asn Val Pro Met Ser Ser Gln Leu Ala Ala Asn His Trp  
                     610                      615                      620  
 Asn Gln Gln Gln Ala Glu Gln Glu Glu Arg Met Arg Met Lys Lys Leu  
 625                      630                      635                      640  
 Thr Leu Asp Ile Asn Glu Arg Gln Glu Gln Glu Asp Tyr Gln Glu Met  
                     645                      650                      655  
 Leu Gln Ser Leu Ala Gln Arg Pro Ala Pro Ala Asn Thr Asn Arg Glu  
                     660                      665                      670  
 Arg Arg Pro Arg Tyr Gln His Pro Lys Gly Ala Pro Asn Ala Asp Leu  
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 <212> DNA  
 <213> Homo sapiens

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 120  
 tcgttagaat ctctcaccct gcttctcggt ctgatctgtg caagctcagt ctcttctgag  
 180  
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 240  
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 360  
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 420  
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 480  
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 1620  
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 1680  
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 1740  
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&lt;210&gt; 3040

&lt;211&gt; 142

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3040

Thr	Leu	Cys	His	Cys	Leu	Asp	Leu	His	Ile	Arg	Ala	Ala	Leu	Met	Pro
1				5					10					15	
Leu	Pro	Asp	Thr	Ala	Thr	Gly	Leu	Asp	Trp	Thr	His	Leu	Val	Asp	Ala
			20					25					30		
Ala	Arg	Ala	Phe	Glu	Asp	Gln	Arg	Val	Ala	Ser	Phe	Cys	Thr	Leu	Thr
		35					40					45			
Asp	Met	Gln	His	Gly	Gln	Asp	Leu	Glu	Gly	Ala	Gln	Glu	Leu	Pro	Leu
	50					55					60				
Cys	Val	Asp	Pro	Gly	Ser	Gly	Lys	Glu	Phe	Met	Asp	Thr	Thr	Gly	Glu
65					70					75				80	
Arg	Ser	Pro	Ser	Pro	Leu	Thr	Gly	Lys	Val	Asn	Gln	Leu	Glu	Leu	Ile

				85						90					95				
Leu	Arg	Gln	Leu	Gln	Thr	Asp	Leu	Arg	Lys	Glu	Lys	Gln	Asp	Lys	Ala				
			100						105					110					
Gly	Leu	Gln	Ala	Glu	Val	Gln	His	Leu	Arg	Gln	Asp	Asn	Met	Arg	Leu				
		115					120					125							
Gln	Glu	Glu	Ser	Gln	Thr	Ala	Thr	Ala	Gln	Leu	Arg	Lys	Leu						
		130					135					140							

&lt;210&gt; 3041

&lt;211&gt; 1512

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3041

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180
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240
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1200

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 aaaaaaaaaa aa  
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<210> 3042  
 <211> 360  
 <212> PRT  
 <213> Homo sapiens

<400> 3042  
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 Leu Thr Leu Ser Thr Pro Lys Pro Leu Val Asp Phe Cys Asn Lys Pro  
 20 25 30  
 Ile Leu Leu His Gln Val Glu Ala Leu Ala Ala Ala Gly Val Asp His  
 35 40 45  
 Val Ile Leu Ala Val Ser Tyr Met Ser Gln Val Leu Glu Lys Glu Met  
 50 55 60  
 Lys Ala Gln Glu Gln Arg Leu Gly Ile Arg Ile Ser Met Ser His Glu  
 65 70 75 80  
 Glu Glu Pro Leu Gly Thr Ala Gly Pro Leu Ala Leu Ala Arg Asp Leu  
 85 90 95  
 Leu Ser Glu Thr Ala Asp Pro Phe Phe Val Leu Asn Ser Asp Val Ile  
 100 105 110  
 Cys Asp Phe Pro Phe Gln Ala Met Val Gln Phe His Arg His His Gly  
 115 120 125  
 Gln Glu Gly Ser Ile Leu Val Thr Lys Val Glu Glu Pro Ser Lys Tyr  
 130 135 140  
 Gly Val Val Val Cys Glu Ala Asp Thr Gly Arg Ile His Arg Phe Val  
 145 150 155 160  
 Glu Lys Pro Gln Val Phe Val Ser Asn Lys Ile Asn Ala Gly Met Tyr  
 165 170 175  
 Ile Leu Ser Pro Ala Val Leu Arg Arg Ile Gln Leu Gln Pro Thr Ser  
 180 185 190  
 Ile Glu Lys Glu Val Phe Pro Ile Met Ala Lys Glu Gly Gln Leu Tyr  
 195 200 205  
 Ala Met Glu Leu Gln Gly Phe Trp Met Asp Ile Gly Gln Pro Lys Asp  
 210 215 220  
 Phe Leu Thr Gly Met Cys Leu Phe Leu Gln Ser Leu Arg Gln Lys Gln  
 225 230 235 240  
 Pro Glu Arg Leu Cys Ser Gly Pro Gly Ile Val Gly Asn Val Leu Val  
 245 250 255  
 Asp Pro Ser Ala Arg Ile Gly Gln Asn Cys Ser Ile Gly Pro Asn Val  
 260 265 270  
 Ser Leu Gly Pro Gly Val Val Val Glu Asp Gly Val Cys Ile Arg Arg

```

      275              280              285
Cys Thr Val Leu Arg Asp Ala Arg Ile Arg Ser His Ser Trp Leu Glu
      290              295              300
Ser Cys Ile Val Gly Trp Arg Cys Arg Val Gly Gln Trp Val Arg Met
      305              310              315              320
Glu Asn Val Thr Val Leu Gly Glu Asp Val Ile Val Asn Asp Glu Leu
      325              330              335
Tyr Leu Asn Gly Ala Ser Val Leu Pro His Lys Ser Ile Gly Glu Ser
      340              345              350
Val Pro Glu Pro Arg Ile Ile Met
      355              360

```

&lt;210&gt; 3043

&lt;211&gt; 394

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3043

```

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120
cttctctgac ctactccaa ctacgtgtc tttagactt taagggaactt cctgttttag
180
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240
ccagcctttg tttggggact cggaggcaga gtagacagtt acccttacct ctgggttggg
300
gagggtcata ttcttggtat cccagggagg tcaacagggg cttcattttt ctgagggact
360
agaggggtctt gtggagctcc tgggacagag atct
394

```

&lt;210&gt; 3044

&lt;211&gt; 115

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3044

```

Met Lys Pro Leu Leu Thr Ser Trp Gly Tyr Gln Glu Tyr Asp Pro Pro
1      5      10      15
Gln Pro Arg Gly Lys Gly Asn Cys Leu Leu Cys Leu Arg Val Pro Lys
20      25      30
Gln Arg Leu Gly Asn Ile Ser Leu Lys Leu Glu Asn His Cys Pro Phe
35      40      45
Asn Asp Thr Gln Pro Glu Asp Pro Lys Thr Gly Ser Pro Leu Lys Cys
50      55      60
Gln Arg His Val Ser Trp Ser Glu Val Arg Glu Ala Asp Ser Gly Leu
65      70      75      80
Leu Leu Gly Gln Thr Pro Val Lys Arg Lys Arg Trp His His Glu Thr
85      90      95
Ser Ser Phe Ser Pro Cys Leu Trp Leu Lys Ala Arg Ala Ser Arg Ser
100     105     110
Lys Glu Ile

```



115

&lt;210&gt; 3045

&lt;211&gt; 605

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3045

```

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60
gaagaaattc tttgttaciaa gctgctatcc atgtccaggg ccaaacaatga atcctattgc
120
tcttggggagc cgctggcctt cttatgcaga aaacaagttg attcgatgtc atcagtcctcg
180
tggtggagcc tgtggagaca acattcagtc ttatactgcc acagtcatta gtgctgctaa
240
aacattgaaa agtggcctga caatggtagg gaaagtgggtg actcagctga caggcacact
300
gccttcagggt gtgacagaag atgatgttgc catccacagt aattcacggc ggagtccttt
360
gggtcccaggc atcatcacag ttattgacac cgaaaccgtg gagagggcca ggtgtttgtg
420
agtgaggatc ttgacagtga tggcattgtg gccacttcc ctgcccata gaagccagt
480
tgctgcatgg cttttaatac aagtggaatg cttctagtca caacagacac ccttggccat
540
gactttcatg tcttccaaat tctgactcat ccttggctct catctacgga gagacgacaa
600
cgcggt
605

```

&lt;210&gt; 3046

&lt;211&gt; 72

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3046

```

His Arg Asn Arg Gly Glu Gly Gln Val Phe Val Ser Glu Asp Leu Asp
1           5           10           15
Ser Asp Gly Ile Val Ala His Phe Pro Ala His Glu Lys Pro Val Cys
20           25           30
Cys Met Ala Phe Asn Thr Ser Gly Met Leu Leu Val Thr Thr Asp Thr
35           40           45
Leu Gly His Asp Phe His Val Phe Gln Ile Leu Thr His Pro Trp Ser
50           55           60
Ser Ser Thr Glu Arg Arg Gln Arg
65           70

```

&lt;210&gt; 3047

&lt;211&gt; 391

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3047

attttggagg agaggaagaa tgaaatgacc caagtcatta cccgaaccca agaggagaaa  
 60  
 ctggaacatg tccgtgctct gatcaaaaag tattctgac atttggagaa cgtctcaaag  
 120  
 ttggttgagt caggaattca gtttatggat gagccagaaa tggcagtgtt tctgcagaat  
 180  
 gccaaaaccc tgctaaaaaa aatctcggaa gcatcaaagg catttcagat ggagaaaata  
 240  
 gaacatggct atgagaacat gaaccacttc acagtcaacc tcaatagaga agaaaagata  
 300  
 atacgtgaaa ttgactttta cagagaagat gaagatgaag aagaagaaga aggcggagaa  
 360  
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 391

<210> 3048

<211> 122

<212> PRT

<213> Homo sapiens

<400> 3048

Met	Thr	Gln	Val	Ile	Thr	Arg	Thr	Gln	Glu	Glu	Lys	Leu	Glu	His	Val
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Arg	Ala	Leu	Ile	Lys	Lys	Tyr	Ser	Asp	His	Leu	Glu	Asn	Val	Ser	Lys
			20					25					30		
Leu	Val	Glu	Ser	Gly	Ile	Gln	Phe	Met	Asp	Glu	Pro	Glu	Met	Ala	Val
			35				40					45			
Phe	Leu	Gln	Asn	Ala	Lys	Thr	Leu	Leu	Lys	Lys	Ile	Ser	Glu	Ala	Ser
	50					55					60				
Lys	Ala	Phe	Gln	Met	Glu	Lys	Ile	Glu	His	Gly	Tyr	Glu	Asn	Met	Asn
65					70					75				80	
His	Phe	Thr	Val	Asn	Leu	Asn	Arg	Glu	Glu	Lys	Ile	Ile	Arg	Glu	Ile
			85					90					95		
Asp	Phe	Tyr	Arg	Glu	Asp	Glu	Asp	Glu	Glu	Glu	Glu	Glu	Gly	Gly	Glu
			100					105					110		
Gly	Glu	Lys	Glu	Glu	Lys	Glu	Lys	Trp	Glu						
			115					120							

<210> 3049

<211> 599

<212> DNA

<213> Homo sapiens

<400> 3049

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 120  
 tttcctttctc tgaacgaaag ctcggccgag gtgctcgaat acaccattaa ggaagaaaag  
 180  
 tcgatattgt acctggaagg ctcggctctt gtgtttgagg acatcttcag attgattgcy  
 240  
 ttctactgtg tcagtagaga cttactgccc ttcacactgc ggctacccca ggccatcctt  
 300

gaggccagca gcttcacgga ccttgagacc atcgccaacc tgggtctggg tttctgggac  
 360  
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 420  
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 480  
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 540  
 gactgcagca gcgcctgcc caccgaccag ccacctcttg gaaattgccc ttcacgcgt  
 599

<210> 3050  
 <211> 177  
 <212> PRT  
 <213> Homo sapiens

<400> 3050  
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 Val His Phe Pro Ser Leu Asn Glu Ser Ser Ala Glu Val Leu Glu Tyr  
 20 25 30  
 Thr Ile Lys Glu Glu Lys Ser Ile Leu Tyr Leu Glu Gly Ser Ala Leu  
 35 40 45  
 Val Phe Glu Asp Ile Phe Arg Leu Ile Ala Phe Tyr Cys Val Ser Arg  
 50 55 60  
 Asp Leu Leu Pro Phe Thr Leu Arg Leu Pro Gln Ala Ile Leu Glu Ala  
 65 70 75 80  
 Ser Ser Phe Thr Asp Leu Glu Thr Ile Ala Asn Leu Gly Leu Gly Phe  
 85 90 95  
 Trp Asp Ser Ser Leu Asn Pro Pro Gln Glu Arg Gly Lys Pro Ala Glu  
 100 105 110  
 Pro Pro Arg Asp Arg Ala Pro Gly Phe Pro Leu Val Ser Ser Leu Arg  
 115 120 125  
 Pro Thr Ala His Asp Ala Asn Cys Ala Cys Glu Ile Glu Leu Ser Val  
 130 135 140  
 Gly Asn Asp Arg Leu Trp Phe Val Asn Pro Ile Phe Ile Glu Asp Cys  
 145 150 155 160  
 Ser Ser Ala Leu Pro Thr Asp Gln Pro Pro Leu Gly Asn Cys Pro Ser  
 165 170 175  
 Arg

<210> 3051  
 <211> 820  
 <212> DNA  
 <213> Homo sapiens

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 120  
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 180

tcctcggcca ccgtcgaca acaggcctcc tcctccccag tccctggagg gactccgaca  
 240  
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 300  
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 420  
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 480  
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 720  
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 820

<210> 3052

<211> 62

<212> PRT

<213> Homo sapiens

<400> 3052

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1			5					10					15		
Gly	Thr	Pro	Ser	Ser	Ala	Thr	Val	Ala	Gln	Gln	Ala	Ser	Ser	Ser	Pro
		20					25					30			
Val	Pro	Gly	Gly	Thr	Pro	Thr	Asp	Ala	Leu	Ser	Pro	Xaa	Thr	Thr	Met
		35				40				45					
Thr	Ser	His	Pro	Ser	Ser	Pro	Lys	Cys	Gly	Val	Ser	Pro	Leu		
	50					55				60					

<210> 3053

<211> 2625

<212> DNA

<213> Homo sapiens

<400> 3053

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 180  
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 240  
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 300

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360  
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420  
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1920

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 <211> 417  
 <212> PRT  
 <213> Homo sapiens

<400> 3054  
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 Thr Val Lys Asp Gly Leu Ser Leu Gln Phe Lys Arg Phe Arg Glu Thr  
 35 40 45  
 Val Pro Thr Trp Asp Thr Ile Arg Asp Glu Glu Asp Val Leu Asp Glu  
 50 55 60  
 Leu Leu Gln Tyr Leu Gly Val Thr Ser Pro Glu Cys Leu Gln Arg Thr  
 65 70 75 80  
 Gly Ile Ser Leu Asn Ile Pro Ala Pro Gln Pro Val Cys Ile Ser Glu  
 85 90 95  
 Lys Gln Glu Asn Asp Val Ile Asn Ala Ile Leu Lys Gln His Thr Glu  
 100 105 110  
 Glu Lys Glu Phe Val Glu Lys His Phe Asn Asp Leu Asn Met Lys Ala  
 115 120 125  
 Val Glu Gln Asp Glu Pro Ile Pro Gln Lys Pro Gln Ser Ala Phe Tyr  
 130 135 140  
 Tyr Cys Arg Leu Leu Leu Ser Ile Leu Gly Met Asn Ser Trp Asp Lys  
 145 150 155 160  
 Arg Arg Ser Phe His Leu Leu Lys Lys Asn Glu Lys Leu Leu Arg Glu  
 165 170 175  
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<210> 3055
<211> 905
<212> DNA
<213> Homo sapiens
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240
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480
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<210> 3056

<211> 195

<212> PRT

<213> Homo sapiens

<400> 3056

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			20					25					30		
Cys	Ile	Phe	Tyr	Asp	Glu	Asn	Thr	Lys	His	Tyr	Glu	Leu	Leu	Asn	Tyr
		35					40					45			
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	50					55					60				
Ser	Glu	Lys	Thr	Pro	Pro	Thr	Pro	Pro	Ser	Ser	Ile	Val	Ala	Lys	Val
65				70						75				80	
Gln	Ser	Val	Ile	Arg	Arg	Arg	Arg	His	Gln	Lys	Gln	Asp	Glu	Glu	Pro
			85						90					95	
Ser	Glu	Glu	Ala	Ala	Met	Met	Ser	Ser	Gln	Ala	Gln	Gly	Pro	Gln	Arg
			100					105					110		
Arg	Pro	Cys	Asn	Cys	Lys	Ala	Ser	Ser	Ser	Ser	Leu	Ile	Gly	Gly	Ser
		115				120						125			
Gly	Ala	Gly	Trp	Glu	Gly	Thr	Ala	Leu	Leu	His	His	Gly	Ser	Tyr	Ile
	130					135					140				
Lys	Leu	Gly	Cys	Leu	Gln	Phe	Val	Phe	Ser	Ile	Thr	Glu	Phe	Ala	Thr
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Lys	Gln	Pro	Lys	Gly	Asp	Ala	Ser	Leu	Leu	Gln	Asp	Gly	Val	Leu	Ala
			165					170					175		
Glu	Lys	Leu	Ser	Leu	Lys	Pro	His	Gln	Gly	Pro	Val	Leu	Arg	Ser	Asn
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<210> 3057

<211> 2169

<212> DNA

<213> Homo sapiens



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300  
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360  
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<210> 3058

<211> 298

<212> PRT

<213> Homo sapiens

<400> 3058

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		20						25				30			
Ala	Arg	Arg	Ala	Arg	Lys	Val	Phe	Thr	Val	Ile	Glu	Pro	Val	Asp	Ile
		35				40					45				
Asn	Thr	Pro	Ala	Leu	Leu	Ala	Pro	Gln	Ala	Gly	Ala	Arg	Glu	Lys	Val
	50				55				60						
Ala	Arg	Ser	Trp	Tyr	Cys	Asn	Arg	Gly	Leu	Val	Ser	Leu	Ser	Ala	Lys
65				70				75						80	
Ile	Asp	Arg	Lys	Gly	Tyr	Thr	Pro	Gly	Glu	Val	Ile	Pro	Val	Phe	Ala
		85						90				95			
Glu	Ile	Asp	Asn	Gly	Ser	Thr	Arg	Pro	Val	Leu	Pro	Arg	Ala	Ala	Val
	100							105				110			
Val	Gln	Thr	Gln	Thr	Phe	Met	Ala	Arg	Gly	Ala	Arg	Lys	Gln	Lys	Arg
	115					120						125			
Ala	Val	Val	Ala	Ser	Leu	Ala	Gly	Glu	Pro	Val	Gly	Pro	Gly	Gln	Arg
	130					135					140				
Ala	Leu	Trp	Gln	Gly	Arg	Ala	Leu	Arg	Ile	Pro	Pro	Val	Gly	Pro	Ser
145				150					155					160	
Ile	Leu	His	Cys	Arg	Val	Leu	His	Val	Asp	Tyr	Ala	Leu	Lys	Val	Cys
		165						170					175		
Val	Asp	Ile	Pro	Gly	Thr	Ser	Lys	Leu	Leu	Leu	Glu	Leu	Pro	Leu	Val
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180
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240
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300
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420
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480
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720
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840
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900
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960
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1020

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 1260  
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 1320  
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<210> 3060

<211> 334

<212> PRT

<213> Homo sapiens

<400> 3060

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			20					25					30		
Arg	Thr	Tyr	Ser	Arg	Lys	Lys	Gly	Gly	Arg	Lys	Ser	Arg	Ser	Lys	Ser
		35					40					45			
Arg	Ser	Trp	Ser	Arg	Asp	Leu	Gln	Pro	Arg	Ser	His	Ser	Tyr	Asp	Arg
	50					55					60				
Arg	Arg	Arg	His	Arg	Ser	Ser	Ser	Ser	Ser	Ser	Tyr	Gly	Ser	Arg	Arg
65					70					75				80	
Lys	Arg	Ser	Arg	Ser	Arg	Ser	Arg	Gly	Arg	Gly	Lys	Ser	Tyr	Arg	Val
				85					90					95	
Gln	Arg	Ser	Arg	Ser	Lys	Ser	Arg	Thr	Arg	Arg	Ser	Arg	Ser	Arg	Pro
		100						105					110		
Arg	Leu	Arg	Ser	His	Ser	Arg	Ser	Ser	Glu	Arg	Ser	Ser	His	Arg	Arg
	115					120						125			
Thr	Arg	Ser	Arg	Ser	Arg	Asp	Arg	Glu	Arg	Arg	Lys	Gly	Arg	Asp	Lys
	130					135						140			
Glu	Lys	Arg	Glu	Lys	Glu	Lys	Asp	Lys	Gly	Lys	Asp	Lys	Glu	Leu	His
145					150					155				160	
Asn	Ile	Lys	Arg	Gly	Glu	Ser	Gly	Asn	Ile	Lys	Ala	Gly	Leu	Glu	His
				165				170					175		
Leu	Pro	Pro	Ala	Glu	Gln	Ala	Lys	Ala	Arg	Leu	Gln	Leu	Val	Leu	Glu
			180					185					190		
Ala	Ala	Ala	Lys	Ala	Asp	Glu	Ala	Leu	Lys	Ala	Lys	Glu	Arg	Asn	Glu
	195						200					205			
Glu	Glu	Ala	Lys	Arg	Arg	Lys	Glu	Glu	Asp	Gln	Ala	Thr	Leu	Val	Glu
	210					215					220				
Gln	Val	Lys	Arg	Val	Lys	Glu	Ile	Glu	Ala	Ile	Glu	Ser	Asp	Ser	Phe
225					230					235				240	
Val	Gln	Gln	Thr	Phe	Arg	Ser	Ser	Lys	Glu	Val	Lys	Lys	Ser	Val	Glu
				245					250				255		
Pro	Ser	Glu	Val	Lys	Gln	Ala	Thr	Ser	Thr	Ser	Gly	Pro	Ala	Ser	Ala

	260		265		270										
Val	Ala	Asp	Pro	Pro	Ser	Thr	Glu	Lys	Glu	Ile	Asp	Pro	Thr	Ser	Ile
	275						280				285				
Pro	Thr	Ala	Ile	Lys	Tyr	Gln	Asp	Asp	Asn	Ser	Leu	Ala	His	Pro	Asn
	290					295					300				
Leu	Phe	Ile	Glu	Lys	Ala	Asp	Ala	Glu	Glu	Lys	Trp	Phe	Lys	Arg	Leu
305					310				315						320
Ile	Ala	Leu	Arg	Gln	Glu	Arg	Leu	Met	Gly	Ser	Pro	Val	Ala		
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&lt;210&gt; 3061

&lt;211&gt; 1554

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3061

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1140

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 <211> 146  
 <212> PRT  
 <213> Homo sapiens

<400> 3062  
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 Ser Ser Ser Phe Arg Leu Leu Gln Glu Ala Leu Glu Ala Glu Glu Arg  
 35 40 45  
 Gly Gly Thr Pro Ala Phe Leu Pro Ser Ser Leu Ser Pro Gln Ser Ser  
 50 55 60  
 Leu Pro Ala Ser Arg Ala Leu Ala Thr Pro Pro Lys Leu His Thr Cys  
 65 70 75 80  
 Glu Lys Cys Ser Thr Ser Ile Ala Asn Gln Ala Val Arg Ile Gln Glu  
 85 90 95  
 Gly Arg Tyr Arg His Pro Gly Cys Tyr Thr Cys Ala Asp Cys Gly Leu  
 100 105 110  
 Asn Leu Lys Met Arg Gly His Phe Trp Val Gly Asp Glu Leu Tyr Cys  
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 <211> 386  
 <212> DNA  
 <213> Homo sapiens

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<210> 3064

<211> 128

<212> PRT

<213> Homo sapiens

<400> 3064

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			20					25					30		
Tyr	Gln	Cys	Ser	Arg	Pro	Ala	Pro	Leu	His	Ser	Arg	Asp	Leu	His	Ser
		35					40					45			
Met	Ile	Val	Ala	Ala	Phe	Gln	Cys	Leu	Cys	Val	Trp	Leu	Thr	Glu	His
	50					55				60					
Pro	Asp	Met	Leu	Asp	Glu	Lys	Asp	Tyr	Leu	Lys	Glu	Val	Leu	Glu	Ile
65					70				75					80	
Val	Glu	Leu	Gly	Ile	Ser	Gly	Ser	Lys	Ser	Lys	Asn	Asn	Glu	Gln	Glu
			85					90					95		
Val	Lys	Tyr	Lys	Gly	Asp	Lys	Glu	Pro	Asn	Pro	Ala	Ser	Met	Arg	Val
		100						105					110		
Lys	Asp	Ala	Ala	Glu	Ala	Thr	Leu	Thr	Trp	Tyr	Gly	Ser	Asp	Arg	Thr
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<210> 3065

<211> 2104

<212> DNA

<213> Homo sapiens

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<211> 183  
<212> PRT  
<213> Homo sapiens

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<210> 3068

<211> 204

<212> PRT

<213> Homo sapiens

<400> 3068

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<212> DNA

<213> Homo sapiens

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&lt;210&gt; 3070

&lt;211&gt; 153

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3070

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Tyr Phe Gln Val Leu Cys Val Ala Asp Val Val Ile Ser Thr Ala Lys
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His Glu Phe Phe Gly Val Ala Met Leu Glu Ala Val Tyr Cys Gly Cys
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Glu Tyr Leu Tyr Ser Thr Pro Glu Gln Leu Ser Lys Arg Leu Gln Asn
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Phe Cys Lys Arg Pro Asp Ile Ile Arg Lys His Leu Tyr Lys Gly Glu
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&lt;210&gt; 3071

&lt;211&gt; 3343

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3071

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&lt;210&gt; 3072

&lt;211&gt; 349

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3072

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Phe Ile Cys Gly Asn Cys Gly Arg Ser Phe Ala Gln Trp Asp Gln Leu
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Ala Lys Ala Leu Gly Pro Arg Pro Arg Gly Arg Pro Ala Val Thr Ala
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  225      230      235      240
Cys Gly Lys Arg Phe Arg His Lys Pro Asn Leu Ile Ala His Arg Arg
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Val His Thr Gly Glu Arg Pro His Gln Cys Pro Glu Cys Gly Lys Arg
      260      265      270
Phe Thr Asn Lys Pro Tyr Leu Thr Ser His Arg Arg Ile His Thr Gly
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Glu Lys Pro Tyr Pro Cys Lys Glu Cys Gly Arg Arg Phe Arg His Lys
      290      295      300
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&lt;210&gt; 3073

&lt;211&gt; 791

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3073

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<211> 263

<212> PRT

<213> Homo sapiens

<400> 3074

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65					70					75				80	
Ile	Trp	Ser	Val	Glu	Ser	Asp	Asp	Pro	Asn	Leu	Ala	Ala	Val	Leu	Glu
			85					90						95	
Arg	Leu	Val	Asp	Ile	Lys	Lys	Gly	Asn	Thr	Leu	Leu	Leu	Gln	His	Leu
		100					105						110		
Lys	Arg	Ile	Ile	Ser	Asp	Leu	Cys	Lys	Leu	Tyr	Asn	Leu	Pro	Gln	His
	115					120						125			
Pro	Asp	Val	Glu	Met	Leu	Asp	Gln	Pro	Leu	Pro	Ala	Glu	Gln	Cys	Thr
	130					135					140				
Gln	Glu	Asp	Val	Ser	Ser	Glu	Asp	Glu	Asp	Glu	Glu	Met	Pro	Glu	Asp
145					150					155				160	
Thr	Glu	Asp	Leu	Asp	His	Tyr	Glu	Met	Lys	Glu	Glu	Glu	Pro	Ala	Glu
			165					170						175	
Gly	Lys	Lys	Ser	Glu	Asp	Asp	Gly	Ile	Gly	Lys	Glu	Asn	Leu	Ala	Ile
			180					185					190		
Leu	Glu	Lys	Ile	Lys	Lys	Asn	Gln	Arg	Gln	Asp	Tyr	Leu	Asn	Gly	Ala
	195					200						205			
Val	Ser	Gly	Ser	Val	Gln	Ala	Thr	Asp	Arg	Leu	Met	Lys	Glu	Leu	Gln
	210					215					220				
Gly	Tyr	Ile	Thr	Xaa	Ser	Gln	Ser	Phe	Lys	Gly	Gly	Asn	Tyr	Xaa	Ser
225					230					235				240	
Ser	Asn	Ser	Trp	Asn	Asp	Ser	Leu	Tyr	Gly	Trp	Asp	Val	Gln	Leu	Leu
			245					250						255	
Lys	Val	Asp	Gln	Gly	Ser	Val									
			260												

<210> 3075

<211> 603



&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3075

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120
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180
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240
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300
tatgatgctt ttgagagcaa gagcagcttc actctgatca tggagtatgt ggatggaggc
360
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420
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480
gacctcaagc ctgagaacat attgtgtgtc agccagacag ggcacaaat taagatcatt
540
gactttgggc tggctagaag atacaagcct cgggagaagc taaaggtgaa ctttggtact
600
ccg
603

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&lt;210&gt; 3076

&lt;211&gt; 201

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3076

```

Pro Leu Gly Gly Lys Asn Phe Leu Lys Lys Met Val Gly Lys Asn Pro
 1             5             10            15
Pro Pro Pro Pro Pro Phe Phe Ser Pro Val Gly Ala Lys Lys Lys Asn
      20             25            30
Val Gly Pro Gln Lys Lys Lys Lys Lys Lys Lys Lys Val Leu Gly Gly
      35             40            45
Gly Arg Phe Gly Gln Val His Arg Cys Thr Glu Lys Ser Thr Gly Leu
      50             55            60
Ala Leu Ala Ala Lys Ile Ile Lys Val Lys Asn Val Lys Asp Arg Glu
      65             70            75            80
Asp Val Lys Asn Glu Val Asn Ile Met Asn Gln Leu Ser His Val Asn
      85             90            95
Leu Ile Gln Leu Tyr Asp Ala Phe Glu Ser Lys Ser Ser Phe Thr Leu
      100            105           110
Ile Met Glu Tyr Val Asp Gly Gly Glu Leu Phe Asp Arg Ile Thr Asp
      115            120           125
Glu Lys Tyr His Leu Thr Glu Leu Asp Val Val Leu Phe Thr Arg Gln
      130            135           140
Ile Cys Glu Gly Val His Tyr Leu His Gln His Tyr Ile Leu His Leu
      145            150           155           160
Asp Leu Lys Pro Glu Asn Ile Leu Cys Val Ser Gln Thr Gly His Gln

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	165		170		175
Ile Lys Ile Ile Asp Phe Gly Leu Ala Arg Arg Tyr Lys Pro Arg Glu					
	180		185		190
Lys Leu Lys Val Asn Phe Gly Thr Pro					
	195		200		

&lt;210&gt; 3077

&lt;211&gt; 1377

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3077

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120
gtggaggtgg cgaacggccg ctccctgggtg tggggagccg aggcggtgca ggccctccgg
180
gagcgcttgg gtgtgggggg ccgcacggta ggcgccttgc cccgcggggc ccgccagaac
240
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300
ggcgccgtga ctctgggtcag cgcctccgct ccagactctc ggcaccacag cctggccctg
360
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420
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480
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540
gctgccaag aggatgagac cagtgatggc caggcttcgg gagagcagga ggaagctggc
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660
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720
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780
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1140
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1200
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1260

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 1377

<210> 3078

<211> 310

<212> PRT

<213> Homo sapiens

<400> 3078

Met	Leu	Val	Val	Glu	Val	Ala	Asn	Gly	Arg	Ser	Leu	Val	Trp	Gly	Ala
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Glu	Ala	Val	Gln	Ala	Leu	Arg	Glu	Arg	Leu	Gly	Val	Gly	Gly	Arg	Thr
			20					25					30		
Val	Gly	Ala	Leu	Pro	Arg	Gly	Pro	Arg	Gln	Asn	Ser	Arg	Leu	Gly	Leu
		35					40					45			
Pro	Leu	Leu	Leu	Met	Pro	Glu	Glu	Ala	Arg	Leu	Leu	Ala	Glu	Ile	Gly
	50					55					60				
Ala	Val	Thr	Leu	Val	Ser	Ala	Pro	Arg	Pro	Asp	Ser	Arg	His	His	Ser
65				70					75					80	
Leu	Ala	Leu	Thr	Ser	Phe	Lys	Arg	Gln	Gln	Glu	Glu	Ser	Phe	Gln	Glu
			85					90						95	
Gln	Ser	Ala	Leu	Ala	Ala	Glu	Ala	Arg	Glu	Thr	Arg	Arg	Gln	Glu	Leu
		100					105						110		
Leu	Glu	Lys	Ile	Thr	Glu	Gly	Gln	Ala	Ala	Lys	Lys	Gln	Lys	Leu	Glu
	115						120					125			
Gln	Ala	Ser	Gly	Ala	Ser	Ser	Ser	Gln	Glu	Ala	Gly	Ser	Ser	Gln	Ala
	130					135					140				
Ala	Lys	Glu	Asp	Glu	Thr	Ser	Asp	Gly	Gln	Ala	Ser	Gly	Glu	Gln	Glu
145				150					155					160	
Glu	Ala	Gly	Pro	Ser	Ser	Ser	Gln	Ala	Gly	Pro	Ser	Asn	Gly	Val	Ala
			165					170						175	
Pro	Leu	Pro	Arg	Ser	Ala	Leu	Leu	Val	Gln	Leu	Ala	Thr	Ala	Arg	Pro
		180					185						190		
Arg	Pro	Val	Lys	Ala	Arg	Pro	Leu	Asp	Trp	Arg	Val	Gln	Ser	Lys	Asp
	195					200						205			
Trp	Pro	His	Ala	Gly	Arg	Pro	Ala	His	Glu	Leu	Arg	Tyr	Ser	Ile	Tyr
	210					215					220				
Arg	Asp	Leu	Trp	Glu	Arg	Gly	Phe	Phe	Leu	Ser	Ala	Ala	Gly	Lys	Phe
225				230					235					240	
Gly	Gly	Asp	Phe	Leu	Val	Tyr	Pro	Gly	Asp	Pro	Leu	Arg	Phe	His	Ala
			245					250						255	
His	Tyr	Ile	Ala	Gln	Cys	Trp	Ala	Pro	Glu	Asp	Thr	Ile	Pro	Leu	Gln
		260					265					270			
Asp	Leu	Val	Ala	Ala	Gly	Arg	Leu	Gly	Thr	Ser	Val	Arg	Lys	Thr	Leu
	275						280					285			
Leu	Leu	Cys	Ser	Pro	Gln	Pro	Asp	Gly	Lys	Val	Val	Tyr	Thr	Ser	Leu
	290					295					300				
Gln	Trp	Ala	Ser	Leu	Gln										
305					310										

<210> 3079

<211> 1785

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3079

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120  
tccaaggcat cagcacctga accccctgca gaagaagaag tggcaactgg tacaacctca  
180  
gcctctgatg acctggaagc cctgggtaca ctgagcctgg ggaccacaga ggagaaggca  
240  
gcagctgagg cggctgtgcc caggaccatt ggggccgagc tgatggagct ggtgcggaga  
300  
aacactggcc tgagccacga attatgccgg gtggccatcg gcatcatagt gggtcacatc  
360  
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420  
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600  
gatgcagacc ctgaagtttg caagaaaatg tgcaagagaa acgagttcga gtctgtcctg  
660  
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720  
tgctttggcg ccatgtgcag cctggatgca gccatcatct ccacgcttgt gtcacccgtg  
780  
ctgcctgtag agctggcgag ggacatgcag acagacacgc aggaccacca gaaactctgt  
840  
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900  
tatgagcacc tgggcacgcc ttctgcccag ttctactga acatcgctga ggatgggctg  
960  
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1020  
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1080  
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1140  
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caccctgtgg agcgttctgg ggtcccggcc ctgacctctt cctgggcttc gggatgcccg  
1440  
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1500

tagtgacttc cggactctc tcacggtag cggcaaccc gcggagcccc ctcccccatg  
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 1680  
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 1740  
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 1785

<210> 3080

<211> 500

<212> PRT

<213> Homo sapiens

<400> 3080

Met	Asp	Thr	Leu	Tyr	Thr	Gly	Ser	Ser	Pro	Ser	Glu	Pro	Gly	Ser	Ser
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Cys	Ser	Pro	Thr	Pro	Pro	Pro	Val	Pro	Arg	Arg	Gly	Thr	His	Thr	Thr
			20					25					30		
Val	Ser	Gln	Val	Gln	Pro	Pro	Pro	Ser	Lys	Ala	Ser	Ala	Pro	Glu	Pro
		35					40					45			
Pro	Ala	Glu	Glu	Glu	Val	Ala	Thr	Gly	Thr	Thr	Ser	Ala	Ser	Asp	Asp
		50				55					60				
Leu	Glu	Ala	Leu	Gly	Thr	Leu	Ser	Leu	Gly	Thr	Thr	Glu	Glu	Lys	Ala
65					70					75					80
Ala	Ala	Glu	Ala	Ala	Val	Pro	Arg	Thr	Ile	Gly	Ala	Glu	Leu	Met	Glu
				85					90					95	
Leu	Val	Arg	Arg	Asn	Thr	Gly	Leu	Ser	His	Glu	Leu	Cys	Arg	Val	Ala
			100					105					110		
Ile	Gly	Ile	Ile	Val	Gly	His	Ile	Gln	Ala	Ser	Val	Pro	Ala	Ser	Ser
		115					120					125			
Pro	Val	Met	Glu	Gln	Val	Leu	Leu	Ser	Leu	Val	Glu	Gly	Lys	Asp	Leu
		130				135					140				
Ser	Met	Ala	Leu	Pro	Ser	Gly	Gln	Val	Cys	His	Asp	Gln	Gln	Arg	Leu
145					150					155					160
Glu	Val	Ile	Phe	Ala	Asp	Leu	Ala	Arg	Arg	Lys	Asp	Asp	Ala	Gln	Gln
				165					170					175	
Arg	Ser	Trp	Ala	Leu	Tyr	Glu	Asp	Glu	Gly	Val	Ile	Arg	Cys	Tyr	Leu
			180					185					190		
Glu	Glu	Leu	Leu	His	Ile	Leu	Thr	Asp	Ala	Asp	Pro	Glu	Val	Cys	Lys
		195					200					205			
Lys	Met	Cys	Lys	Arg	Asn	Glu	Phe	Glu	Ser	Val	Leu	Ala	Leu	Val	Ala
		210				215					220				
Tyr	Tyr	Gln	Met	Glu	His	Arg	Ala	Ser	Leu	Arg	Leu	Leu	Leu	Leu	Lys
225					230					235					240
Cys	Phe	Gly	Ala	Met	Cys	Ser	Leu	Asp	Ala	Ala	Ile	Ile	Ser	Thr	Leu
				245					250					255	
Val	Ser	Ser	Val	Leu	Pro	Val	Glu	Leu	Ala	Arg	Asp	Met	Gln	Thr	Asp
			260					265					270		
Thr	Gln	Asp	His	Gln	Lys	Leu	Cys	Tyr	Ser	Ala	Leu	Ile	Leu	Ala	Met
		275					280					285			
Val	Phe	Ser	Met	Gly	Glu	Ala	Val	Pro	Tyr	Ala	His	Tyr	Glu	His	Leu

290                      295                      300  
 Gly Thr Pro Phe Ala Gln Phe Leu Leu Asn Ile Val Glu Asp Gly Leu  
 305                      310                      315                      320  
 Pro Leu Asp Thr Thr Glu Gln Leu Pro Asp Leu Cys Val Asn Leu Leu  
                     325                      330                      335  
 Leu Ala Leu Asn Leu His Leu Pro Ala Ala Asp Gln Asn Val Ile Met  
                     340                      345                      350  
 Ala Ala Leu Ser Lys His Ala Asn Val Lys Ile Phe Ser Glu Lys Leu  
                     355                      360                      365  
 Leu Leu Leu Leu Asn Arg Gly Asp Asp Pro Val Arg Ile Phe Lys His  
                     370                      375                      380  
 Glu Pro Gln Pro Pro His Ser Val Leu Lys Phe Leu Gln Asp Val Phe  
 385                      390                      395                      400  
 Gly Ser Pro Ala Thr Ala Ala Ile Phe Tyr His Thr Asp Met Met Ala  
                     405                      410                      415  
 Leu Ile Asp Ile Thr Val Arg His Ile Ala Asp Leu Ser Pro Gly Asp  
                     420                      425                      430  
 Lys Gly Pro Phe Gly Ala Gly Gln Arg Pro Trp Pro Gly Val Pro Arg  
                     435                      440                      445  
 Leu Leu Glu Pro Gly Ser Thr Pro Ser Arg Glu Pro His Pro Val Glu  
                     450                      455                      460  
 Arg Ser Gly Val Pro Ala Leu Thr Ser Ser Trp Ala Ser Gly Cys Pro  
 465                      470                      475                      480  
 Arg Pro Leu His Pro Ala Leu Gln Leu Val Ile Asp Ser Ala Phe Gly  
                     485                      490                      495  
 Gly Arg Ser Val  
                     500

&lt;210&gt; 3081

&lt;211&gt; 1902

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3081

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 aacacgcacc cggggctgtc gttcctgaag gaggcgtccg agttccactc gcgctacatc  
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 720  
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 1860  
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 1902

&lt;210&gt; 3082

&lt;211&gt; 414

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3082

Met Asp Asp Met Gly Leu Val Ala Lys Ala Cys Gly Cys Pro Leu Tyr  
 1 5 10 15  
 Trp Lys Gly Pro Leu Phe Tyr Gly Ala Gly Gly Glu Arg Thr Gly Ser

```

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Val Ser Val His Lys Phe Val Ala Met Trp Arg Lys Ile Leu Gln Asn
      35                40                45
Cys His Asp Asp Ala Ala Lys Phe Val His Leu Leu Met Ser Pro Gly
      50                55                60
Cys Asn Tyr Leu Val Gln Glu Asp Phe Val Pro Phe Leu Gln Asp Val
      65                70                75                80
Val Asn Thr His Pro Gly Leu Ser Phe Leu Lys Glu Ala Ser Glu Phe
      85                90                95
His Ser Arg Tyr Ile Thr Thr Val Ile Gln Arg Ile Phe Tyr Ala Val
      100                105                110
Asn Arg Ser Trp Ser Gly Arg Ile Thr Cys Ala Glu Leu Arg Arg Ser
      115                120                125
Ser Phe Leu Gln Asn Val Ala Leu Leu Glu Glu Glu Ala Asp Ile Asn
      130                135                140
Gln Leu Thr Glu Phe Phe Ser Tyr Glu His Phe Tyr Val Ile Tyr Cys
      145                150                155                160
Lys Phe Trp Glu Leu Asp Thr Asp His Asp Leu Leu Ile Asp Ala Asp
      165                170                175
Asp Leu Ala Arg His Asn Asp His Ala Leu Ser Thr Lys Met Ile Asp
      180                185                190
Arg Ile Phe Ser Gly Ala Val Thr Arg Gly Arg Lys Val Gln Lys Glu
      195                200                205
Gly Lys Ile Ser Tyr Ala Asp Phe Val Trp Phe Leu Ile Ser Glu Glu
      210                215                220
Asp Lys Lys Thr Pro Thr Ser Ile Glu Tyr Trp Phe Arg Cys Met Asp
      225                230                235                240
Leu Asp Gly Asp Gly Ala Leu Ser Met Phe Glu Leu Glu Tyr Phe Tyr
      245                250                255
Glu Glu Gln Cys Arg Arg Leu Asp Ser Met Ala Ile Glu Ala Leu Pro
      260                265                270
Phe Gln Asp Cys Leu Cys Gln Met Leu Asp Leu Val Lys Pro Arg Thr
      275                280                285
Glu Gly Lys Ile Thr Leu Gln Asp Leu Lys Arg Cys Lys Leu Ala Asn
      290                295                300
Val Phe Phe Asp Thr Phe Phe Asn Ile Glu Lys Tyr Leu Asp His Glu
      305                310                315                320
Gln Lys Glu Gln Ile Ser Leu Leu Arg Asp Gly Asp Ser Gly Gly Pro
      325                330                335
Glu Leu Ser Asp Trp Glu Lys Tyr Ala Ala Glu Glu Tyr Asp Ile Leu
      340                345                350
Val Ala Glu Thr Val Gly Glu Pro Trp Glu Asp Gly Phe Glu Ala
      355                360                365
Glu Leu Ser Pro Val Glu Gln Lys Leu Ser Ala Leu Arg Ser Pro Leu
      370                375                380
Ala Gln Arg Pro Phe Phe Glu Ala Pro Ser Pro Leu Gly Ala Val Asp
      385                390                395                400
Leu Tyr Glu Tyr Ala Cys Gly Asp Glu Asp Leu Glu Pro Leu
      405                410

```

&lt;210&gt; 3083

&lt;211&gt; 610

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens



&lt;400&gt; 3083

ngccggccca gctgtgaggga acctgtcagg ccctcgggct ccagtcacct gagctggcac  
 60  
 agggggccac cctgtgagggt gtacattgcc gtcctgcaga gatccagggt gcacgcggcg  
 120  
 gactgggcag gccggggccc ggcaactggt ggtgacagtc atacttcgtg gagcccagcg  
 180  
 agcatcccgg gcaagcacta ccaggctgtg ggtctgcacc tctggaaggt agagaagcgg  
 240  
 cgggtcaatc tgcctagggt cctgtccatg cccccgtgg ctggcaccgc gtgccatgca  
 300  
 tacgaccggg aggtccacct gcgttgtgag ctctcaccgg gctactacct ggctgtcccc  
 360  
 agcaccttcc tgaaggacgc gccaggggag ttcttgctcc gaggcttctc taccgggcga  
 420  
 gtctccctta ggtgagagga accgcgcagt gctgtgggt ctccgaggcc acaggccctt  
 480  
 ccaaggcagg atttgggcac tttccctctg tggttggcag gtgtccatgt gggaaactgag  
 540  
 gccaccggga acctgtgcc agcgccctcc catgtttgtc ttcttggcag cgccatcagg  
 600  
 gcagtggcca  
 610

&lt;210&gt; 3084

&lt;211&gt; 144

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3084

Xaa	Arg	Pro	Ser	Cys	Trp	Glu	Pro	Val	Arg	Pro	Ser	Gly	Ser	Ser	His
1				5					10					15	
Leu	Ser	Trp	His	Arg	Gly	Pro	Pro	Cys	Glu	Val	Tyr	Ile	Ala	Val	Leu
			20					25					30		
Gln	Arg	Ser	Arg	Leu	His	Ala	Ala	Asp	Trp	Ala	Gly	Arg	Ala	Arg	Ala
			35				40				45				
Leu	Val	Gly	Asp	Ser	His	Thr	Ser	Trp	Ser	Pro	Ala	Ser	Ile	Pro	Gly
			50			55				60					
Lys	His	Tyr	Gln	Ala	Val	Gly	Leu	His	Leu	Trp	Lys	Val	Glu	Lys	Arg
65				70					75					80	
Arg	Val	Asn	Leu	Pro	Arg	Val	Leu	Ser	Met	Pro	Pro	Val	Ala	Gly	Thr
			85					90					95		
Ala	Cys	His	Ala	Tyr	Asp	Arg	Glu	Val	His	Leu	Arg	Cys	Glu	Leu	Ser
			100				105						110		
Pro	Gly	Tyr	Tyr	Leu	Ala	Val	Pro	Ser	Thr	Phe	Leu	Lys	Asp	Ala	Pro
			115				120					125			
Gly	Glu	Phe	Leu	Leu	Arg	Val	Phe	Ser	Thr	Gly	Arg	Val	Ser	Leu	Arg
			130				135					140			

&lt;210&gt; 3085

&lt;211&gt; 1080

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3085

```

nntgtgcgga ggaggagttc catcattacg gtcttgcatc agataaatat cccacttta
60
cttctccaat aagaagatat tcagatattg tagtaccctg cttgttaatg gcagccattt
120
caaaagataa gaaaatggaa attaagggaa atctgttcag caacaaagat cttgaggaat
180
tatgcagaca tatcaacaac agaaaccaag cagcacagca ttctcagaag cagtctactg
240
agctcttcca gtgcatttac ttcaaagaca aagaccctgc caccgaggag cgttgcatat
300
ctgacggagt tatttattca attagaacaa atgggtgtgct tctatttata ccaagggttg
360
ggattaaagg tgctgcttat ctaaaaaata aagatgggtt agtcatttca tgtggcccag
420
atagctgttc tgaatggaaa ccaggatccc ttcaacgatt tcaaaacaaa attacctcta
480
ctacaacaga tggggaatct gttacgttcc atttggttga ccatgtaacc gtaagaatat
540
ccatacaggc ctcacgttgc cattctgata caatcagact tgaaataatt agtaacaaac
600
catacaagat accaaatata gaacttattc atcagagttc ccccttgctg aagagtggag
660
tagtgaaaga agtaactaaa tctgtggaag aagctcagct tgcccaagaa gtcaaagtaa
720
acatcattca ggaggaatat caagaatatc gccaaacaaa gggaaggagc ctatacacac
780
ttctagagga gatacgggac ctagctctcc tggatgtttc aaacaattat ggaatatgag
840
aggtctttac ttcactaaga gctgtcatat gtgaatgttt tacagtcttt tcaaacttaa
900
catttaatgt gtgtcactca gtgtcttagt cgatcaggac tgggtagcta ttctgcatat
960
atgtanaatg ttctcagccg ggcacgggtg ctcacgctg taaccccagc actttgggag
1020
gctgaggcgg gcggatcacg aggtcaggag attgagacca tcttggttaa cacggtgaaa
1080

```

&lt;210&gt; 3086

&lt;211&gt; 58

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3086

```

Met Cys Val Thr Gln Cys Ser Ser Arg Ser Gly Leu Gly Ser Tyr Phe
1           5           10           15
Ala Tyr Met Xaa Asn Val Leu Ser Arg Ala Arg Trp Leu Thr Pro Val
20           25           30
Thr Pro Ala Leu Trp Glu Ala Glu Ala Gly Gly Ser Arg Gly Gln Glu
35           40           45
Ile Glu Thr Ile Leu Ala Asn Thr Val Lys
50           55

```

&lt;210&gt; 3087

&lt;211&gt; 2329

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3087

naggagaagc atctggacga tgaggaaaga aggaagcgaa aggaagagaa gaagcggaaag  
60  
cgagagaggg agcactgtga cacggagggg gaggctgacg actttgatcc tgggaagaag  
120  
gtggaggtgg agccgcccc agatcggcca gtccgagcgt gccggacaca gcagccggaa  
180  
atggagcgca cccatattca gcaactcctg gaacacttcc tccgccagct tcagagaaaa  
240  
gatccccatg gatTTTTTgc ttttctgtc acggatgcaa ttgctcctgg atattcaatg  
300  
ataataaaac atcccatgga ttttggcacc atgaaagaca aaattgtagc taatgaatac  
360  
aagtcagtta cggaatttaa ggcagatttc aagctgatgt gtgataatgc aatgacatac  
420  
aataggccag ataccgtgta ctacaagttg gcgaagaaga tccttcacgc aggctttaag  
480  
atgatgagca aacaggcagc tcttttgggc aatgaagata cagctgttga ggaacctgtc  
540  
cctgaagttg taccagtaca agtagaaact gccaagaaat ccaaaaagcc gagtagagaa  
600  
gttatcagct gcatgtttga gcctgaaggg aatgcctgca gcttgacgga cagtaccgca  
660  
gaggagcacg tgctggcgct ggtggagcac gcagctgacg aagctcggga caggatcaac  
720  
cggttcctcc caggcggcaa gatgggctat ctgaagagga acggggacgg gagcctgctc  
780  
tacagcgtgg tcaacacggc cgagccgaac gctgatgagg aggagaccca cccggtgact  
840  
tgagctcgct ctccagtaag ctactcccag gcttcaccac gctgggcttc aaagacgaga  
900  
gaagaaacaa agtcaccttt ctctccagtg ccactactgc gctttcgatg cagaataatt  
960  
cagtatttgg cgacttgaag tcggacgaga tggagctgct ctactcagcc tacggagatg  
1020  
agacaggcgt gcagtgtgcg ctgagcctgc aggagtgtgt gaaggatgct gggagctaca  
1080  
gcaagaaagt ggtggacgac ctctggacc agatcacagg cggagaccac tctaggacgc  
1140  
tcttcagct gaagcagaga agaaatgttc ccataagacc tccagatgaa gccaaggttg  
1200  
gggacacctt aggagacagc agcagctctg ttctggagtt catgtcgatg aagtcctatc  
1260  
ccgacgtttc tgtggatatc tccatgctca gctctctggg gaagggtgaag aaggagctgg  
1320  
accctgacga cagccatttg aacttggatg agacgacgaa gctcctgcag gacctgcacg  
1380  
aagcacaggc ggagcgcggc ggctctcggc cgctcgtccaa cctcagctcc ctgtccaacg  
1440

cctccgagag ggaccagcac cacctgggaa gcccttctcg cctgagtgtc ggggagcagc  
 1500  
 cagacgtcac ccacgacccc tatgagtttc ttcagtctcc agagcctgcg gcctctgcca  
 1560  
 agacctaaact ctagaccacc ttcagctctt ttattttatt tttttagttt tattttgcac  
 1620  
 gtgtagagtt tttgtcatca gacaaggact ttgatcctgt cccctttggc atgcgggaag  
 1680  
 cagccgcggg gaggtaatga attgtctgtg gtatcatgtc agcagagtct ccaagcccca  
 1740  
 cgaaccctga ggagtggagt catacgcgaa ggccatatgg ccatcgtgtc agcagagaga  
 1800  
 gtctctgtac acagccccgt gaaccctgag gagtggagtc atacacgaag ggcgtgtggc  
 1860  
 catcgtgtca gcagagagag tctctgtaca cagccccgtg aaccctgagg agtggagtca  
 1920  
 tacgcgaagg gtgtgtggcc aggctgcaga gctgcgtgcc gtttgtgtcc gagcatcacg  
 1980  
 tgtggctcca gcccttggtt ctgccagtgt agacacctct gtctgccccca ctgtcctggg  
 2040  
 gtcgtctctg ggaggcacag gcatgggtgt gtctggcctc attctgtatc agtccagtgt  
 2100  
 gttcctgtca tagtttgtgt ctcccaggca ggccatggta ggggcctcgc agggggcatt  
 2160  
 ggggagcaca gggccaggct ggggtgagga gagctccctt gttttctgtt taattgatga  
 2220  
 gcctgggaaa ggagtgtgtt ctgcctgccc gttacagtgg agcgttccgt gtccataaaa  
 2280  
 cgttttctaa ctgggaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa  
 2329

<210> 3088

<211> 280

<212> PRT

<213> Homo sapiens

<400> 3088

Xaa	Glu	Lys	His	Leu	Asp	Asp	Glu	Glu	Arg	Arg	Lys	Arg	Lys	Glu	Glu
1				5					10					15	
Lys	Lys	Arg	Lys	Arg	Glu	Arg	Glu	His	Cys	Asp	Thr	Glu	Gly	Glu	Ala
		20					25						30		
Asp	Asp	Phe	Asp	Pro	Gly	Lys	Lys	Val	Glu	Val	Glu	Pro	Pro	Pro	Asp
		35				40					45				
Arg	Pro	Val	Arg	Ala	Cys	Arg	Thr	Gln	Gln	Pro	Glu	Met	Glu	Arg	Thr
		50				55					60				
His	Ile	Gln	Gln	Leu	Leu	Glu	His	Phe	Leu	Arg	Gln	Leu	Gln	Arg	Lys
65				70					75					80	
Asp	Pro	His	Gly	Phe	Phe	Ala	Phe	Pro	Val	Thr	Asp	Ala	Ile	Ala	Pro
			85						90				95		
Gly	Tyr	Ser	Met	Ile	Ile	Lys	His	Pro	Met	Asp	Phe	Gly	Thr	Met	Lys
		100						105				110			
Asp	Lys	Ile	Val	Ala	Asn	Glu	Tyr	Lys	Ser	Val	Thr	Glu	Phe	Lys	Ala
		115					120					125			
Asp	Phe	Lys	Leu	Met	Cys	Asp	Asn	Ala	Met	Thr	Tyr	Asn	Arg	Pro	Asp

130 135 140  
 Thr Val Tyr Tyr Lys Leu Ala Lys Lys Ile Leu His Ala Gly Phe Lys  
 145 150 155 160  
 Met Met Ser Lys Gln Ala Ala Leu Leu Gly Asn Glu Asp Thr Ala Val  
 165 170 175  
 Glu Glu Pro Val Pro Glu Val Val Pro Val Gln Val Glu Thr Ala Lys  
 180 185 190  
 Lys Ser Lys Lys Pro Ser Arg Glu Val Ile Ser Cys Met Phe Glu Pro  
 195 200 205  
 Glu Gly Asn Ala Cys Ser Leu Thr Asp Ser Thr Ala Glu Glu His Val  
 210 215 220  
 Leu Ala Leu Val Glu His Ala Ala Asp Glu Ala Arg Asp Arg Ile Asn  
 225 230 235 240  
 Arg Phe Leu Pro Gly Gly Lys Met Gly Tyr Leu Lys Arg Asn Gly Asp  
 245 250 255  
 Gly Ser Leu Leu Tyr Ser Val Val Asn Thr Ala Glu Pro Asn Ala Asp  
 260 265 270  
 Glu Glu Glu Thr His Pro Val Thr  
 275 280

<210> 3089  
 <211> 722  
 <212> DNA  
 <213> Homo sapiens

<400> 3089  
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 60  
 ggagacgtgc tggacacact ggaggcgctg ggggtataaag gaccattggt agaagagcaa  
 120  
 gcccttacaa aggcggcaga ggggtggatta tcttcacctg aattttcaga gctctgtatt  
 180  
 tggttaggct ctcaaataaa atcattatgc aacttgaag aaagtatcac gtctgctggg  
 240  
 agagatgacc tagagagctt ccagcttgag ataagtgggt ttttaaaaga gatggcctgt  
 300  
 ccataactcg tactcgtctc aggagacatt aaagagcgcc tcacaaagaa ggatgactgc  
 360  
 ttgaaacttc tgttggtttt aagtacagaa cttcaagctt taaaaatatt acagaacaag  
 420  
 aaacataaaa attctcaatt agataaaaaat agtgaagttt atcaggaagt tcaagctatg  
 480  
 tttgatacac ttggatatacc caagtcaaca acttctgaca ttccgcatat gctaaaccaa  
 540  
 gtggaatcaa aggtgaaaga tattctctca aagggtccaga aaaatcatgt gggaaaacca  
 600  
 ctactgaaaa tggatttaaa ttcagaacag gcggaacaac tggaaagaat caatgatgct  
 660  
 ctttcctgtg aatatgagtg ccgccgacga atgttaatga aacgattaga tgtgactgta  
 720  
 ca  
 722

<210> 3090

<211> 240  
 <212> PRT  
 <213> Homo sapiens

<400> 3090

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Xaa Ala Leu Asp Gln Ala Thr Met Arg Gly Pro Glu Leu Gly Pro Glu
 1           5           10           15
Thr Ser Met Glu Gly Asp Val Leu Asp Thr Leu Glu Ala Leu Gly Tyr
      20           25           30
Lys Gly Pro Leu Leu Glu Glu Gln Ala Leu Thr Lys Ala Ala Glu Gly
      35           40           45
Gly Leu Ser Ser Pro Glu Phe Ser Glu Leu Cys Ile Trp Leu Gly Ser
      50           55           60
Gln Ile Lys Ser Leu Cys Asn Leu Glu Glu Ser Ile Thr Ser Ala Gly
65           70           75           80
Arg Asp Asp Leu Glu Ser Phe Gln Leu Glu Ile Ser Gly Phe Leu Lys
      85           90           95
Glu Met Ala Cys Pro Tyr Ser Val Leu Val Ser Gly Asp Ile Lys Glu
      100          105          110
Arg Leu Thr Lys Lys Asp Asp Cys Leu Lys Leu Leu Leu Phe Leu Ser
      115          120          125
Thr Glu Leu Gln Ala Leu Gln Ile Leu Gln Asn Lys Lys His Lys Asn
      130          135          140
Ser Gln Leu Asp Lys Asn Ser Glu Val Tyr Gln Glu Val Gln Ala Met
145          150          155          160
Phe Asp Thr Leu Gly Ile Pro Lys Ser Thr Thr Ser Asp Ile Pro His
      165          170          175
Met Leu Asn Gln Val Glu Ser Lys Val Lys Asp Ile Leu Ser Lys Val
      180          185          190
Gln Lys Asn His Val Gly Lys Pro Leu Leu Lys Met Asp Leu Asn Ser
      195          200          205
Glu Gln Ala Glu Gln Leu Glu Arg Ile Asn Asp Ala Leu Ser Cys Glu
      210          215          220
Tyr Glu Cys Arg Arg Arg Met Leu Met Lys Arg Leu Asp Val Thr Val
225          230          235          240

```

<210> 3091  
 <211> 333  
 <212> DNA  
 <213> Homo sapiens

<400> 3091

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acgcgtgaag ggggcggagg ggaaggaagc cctggggagc agctgctcac ccctttgcca
60
caccatcttg gcctggcagg ggtctgggac tgacagggag caccacaggc ccttggtacc
120
cccagggcga ccccttctgc caagtgtccc aaaatgattg ctaaatgcct ggctccccca
180
ctctttgact ccattctctt gtccctctt tctgctgcca gctccccga ctcttcctg
240
gggactcctt tttgtgtccc ccttctcccc tgcccctact gccaggcaga tccccttttc
300
ttccataccc atccctgcct ccctgctcgg ccg
333

```

&lt;210&gt; 3092

&lt;211&gt; 104

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3092

```

Met Gly Met Glu Glu Lys Gly Ile Cys Leu Ala Val Gly Ala Gly Glu
 1           5           10          15
Lys Gly Asp Thr Lys Arg Ser Pro Gln Gly Arg Val Gly Gly Ala Gly
          20          25          30
Ser Arg Lys Arg Glu Pro Arg Asp Gly Val Lys Glu Trp Gly Ser Gln
          35          40          45
Ala Phe Ser Asn His Phe Gly Thr Leu Gly Arg Arg Gly Arg Pro Gly
          50          55          60
Gly Thr Lys Gly Leu Gly Cys Ser Leu Ser Val Pro Asp Pro Cys Gln
65          70          75          80
Ala Lys Met Val Trp Gln Arg Gly Glu Gln Leu Leu Pro Arg Ala Ser
          85          90          95
Phe Pro Ser Ala Pro Phe Thr Arg
          100

```

&lt;210&gt; 3093

&lt;211&gt; 720

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3093

```

nnaccggttt gtccaaggag gctggcctga ccacttacag cctgtccctg gctctggtgt
60
gaggagcatt aggccagct cagggctctc tggttcaga gccagctggc gtgggcatcc
120
agggggcagc ctgtgggcag tgactctgtc tgtctttgga caggacaagg actgccatcc
180
accatggtga agctgggctg cagcttctct gggaagccag gtaaagaccc tggggaccag
240
gatggggctg ccatggacag tgtgcctctg atcagccctt tggacatcag ccagctccag
300
ccgccactcc ctgaccaggt ggtcatcaag acacagacag aataccagct gtcctcccca
360
gaccagcaga atttcctga cctggagggc cagaggctga actgcagcca cccagaggaa
420
gggcgcaggc tgcccaccgc acggatgac gccttcgcca tggcgctact gggctgcgtg
480
ctgatcatgt acaaggccat ctggtaagac cagttcacct gccccgacgg cttcctgctg
540
cggcacaaga tctgcacgcc gctgaccctg gagatgtact acacggagat ggaccccgag
600
cgccaccgca gcatcctggc ggccatcggg gcctaccgc tgagccgcaa gcacggcacg
660
gagacgccgg cggcctgggg ggacggctac cgcgcagcca aggaggagcg caaggggccc
720

```

&lt;210&gt; 3094

&lt;211&gt; 179

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3094

```

Met Val Lys Leu Gly Cys Ser Phe Ser Gly Lys Pro Gly Lys Asp Pro
 1           5           10           15
Gly Asp Gln Asp Gly Ala Ala Met Asp Ser Val Pro Leu Ile Ser Pro
      20           25           30
Leu Asp Ile Ser Gln Leu Gln Pro Leu Pro Asp Gln Val Val Ile
      35           40           45
Lys Thr Gln Thr Glu Tyr Gln Leu Ser Ser Pro Asp Gln Gln Asn Phe
      50           55           60
Pro Asp Leu Glu Gly Gln Arg Leu Asn Cys Ser His Pro Glu Glu Gly
      65           70           75           80
Arg Arg Leu Pro Thr Ala Arg Met Ile Ala Phe Ala Met Ala Leu Leu
      85           90           95
Gly Cys Val Leu Ile Met Tyr Lys Ala Ile Trp Tyr Asp Gln Phe Thr
      100          105          110
Cys Pro Asp Gly Phe Leu Leu Arg His Lys Ile Cys Thr Pro Leu Thr
      115          120          125
Leu Glu Met Tyr Tyr Thr Glu Met Asp Pro Glu Arg His Arg Ser Ile
      130          135          140
Leu Ala Ala Ile Gly Ala Tyr Pro Leu Ser Arg Lys His Gly Thr Glu
      145          150          155          160
Thr Pro Ala Ala Trp Gly Asp Gly Tyr Arg Ala Ala Lys Glu Glu Arg
      165          170          175
Lys Gly Pro

```

&lt;210&gt; 3095

&lt;211&gt; 519

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3095

```

ggtgggattt caccggcaca ttcattgtacc catagcgggtg ctcattgcac acgtggacgg
60
agaccccagc agcaggcctc agctcatgtg actcggccct ctaagaggcc cagcaagata
120
gggtttgacg aggtctttgt catcagcctg gctcgcaggc ctgaccgtcg ggaacgcatg
180
ctcgccctgc tctgggagat ggagatctct gggagggtgg tggatgctgt ggatggctgg
240
atgctcaaca gcagtgccat caggaacctc ggcgtagacc tgctcccggg ctaccaggac
300
ccttactcgg gccgcactct gaccaagggc gaggtgggct gcttctcag ccattactcc
360
atctgggaag agcgagcagt acaaggcaca cttctggcca cgggacctgg tggccttctc
420
cgcccagccc ctgctcgtcg cccctaccca ctatgccggg gacgccgagt ggctcagtga
480
cacggagaca tcctctccat gggatgatgc cagcggccg
519

```



<210> 3096  
 <211> 159  
 <212> PRT  
 <213> Homo sapiens

<400> 3096  
 Gly Gly Ile Ser Pro Ala His Ser Cys Thr His Ser Gly Ala His Cys  
 1 5 10 15  
 Thr Arg Gly Arg Arg Pro Gln Gln Gln Ala Ser Ala His Val Thr Arg  
 20 25 30  
 Pro Ser Lys Arg Pro Ser Lys Ile Gly Phe Asp Glu Val Phe Val Ile  
 35 40 45  
 Ser Leu Ala Arg Arg Pro Asp Arg Arg Glu Arg Met Leu Ala Ser Leu  
 50 55 60  
 Trp Glu Met Glu Ile Ser Gly Arg Val Val Asp Ala Val Asp Gly Trp  
 65 70 75 80  
 Met Leu Asn Ser Ser Ala Ile Arg Asn Leu Gly Val Asp Leu Leu Pro  
 85 90 95  
 Gly Tyr Gln Asp Pro Tyr Ser Gly Arg Thr Leu Thr Lys Gly Glu Val  
 100 105 110  
 Gly Cys Phe Leu Ser His Tyr Ser Ile Trp Glu Glu Arg Ala Val Gln  
 115 120 125  
 Gly Thr Leu Leu Ala Thr Gly Pro Gly Gly Leu Leu Arg Pro Ala Pro  
 130 135 140  
 Ala Arg Cys Pro Tyr Pro Leu Cys Arg Gly Arg Arg Val Ala Gln  
 145 150 155

<210> 3097  
 <211> 4953  
 <212> DNA  
 <213> Homo sapiens

<400> 3097  
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 60  
 ggcggccgag gggaccgggc cagggccggg ggcggcgccc cgagccgcgg tagcggcggc  
 120  
 ggcgggaggg gcggcctgag ggcggacggg cgggcgcccg ggttgcgggg gctcggtgcc  
 180  
 gctccgcaact gcccggccgg tctcgccccc ggcgccatga gtggcggcgg cggcggaggg  
 240  
 ggctcggcgc ccagtcgctt cgccgactac tttgtcatct gcggactgga cacggagacc  
 300  
 gggctggagc cggacgagct gtcggcatta tgccagtaca tacaggcttc taaagccagg  
 360  
 gatggtgcc a gccccttcat ttcaagtacg actgaaggag aaaattttga gcagacacca  
 420  
 ttgagaagaa cattcaaac taaggtcctt gcacgatatc ctgagaacgt agaatggaat  
 480  
 ccccttgacc aagatgcagt aggaatgcta tgtatgccga aagggtggc attcaagacc  
 540  
 caggctgac ccaggagacc ccaattccat gcctttatta tcacaagggg ggatggctct  
 600

cggacatttg ggtttgccct cacattttat gaagagggtga ctagcaagca gatctgcagt  
660  
gcaatgcaga ccctctacca catgcacaat gctgagtatg atgtcctaca tgctccccct  
720  
gctgatgaca gagaccagag cagcatggag gatggtgaag acactcctgt gaccaaactg  
780  
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&lt;213&gt; Homo sapiens

&lt;400&gt; 3098

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<213> Homo sapiens

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 Ser Leu Ala Leu Thr Gly Pro Tyr Asp Gly Phe Tyr Leu Ser Tyr Lys  
    1060                                      1065                                      1070  
 Val Arg Gly Asn Lys Pro Ser Cys Leu Leu Ala Glu Gln Asn Arg Gly  
    1075                                      1080                                      1085  
 Gln Phe Phe Thr Val Tyr Lys Pro Asn Ile Gly Arg Gln Ser Gln Leu  
    1090                                      1095                                      1100  
 Glu Ala Leu Asp Ser Leu Arg Arg Lys Phe His Arg Val Thr Ala Glu  
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 Glu Ala Lys Glu Pro Trp Glu Ser Gly Tyr Ala Leu Ser Leu Thr His  
    1125                                      1130                                      1135  
 Cys Ser His Ser Ala Trp Asn Arg His Cys Arg Leu Ala Gln Glu Gly  
    1140                                      1145                                      1150  
 Lys Asp Cys Leu Gln Gly Leu Arg Leu Arg His His Tyr Met Leu Cys  
    1155                                      1160                                      1165  
 Gly Ala Leu Leu Arg Val Trp Gly Arg Ile Ala Ala Val Met Ala Asp  
    1170                                      1175                                      1180  
 Val Ser Ser Ser Ser Tyr Leu Gln Ile Val Arg Leu Lys Thr Lys Asp  
 1185                                      1190                                      1195                                      1200  
 Arg Lys Lys Gln Val Gly Ile Lys Ile Pro Glu Gly Cys Val Arg Arg  
    1205                                      1210                                      1215  
 Val Leu Gln Glu Leu Arg Leu Met Asp Ala Asp Val Lys Arg Arg Gln  
    1220                                      1225                                      1230  
 Ala Pro Ala Leu Gly Cys Pro Ala Pro Pro Ala Pro Arg Pro Leu Ala  
    1235                                      1240                                      1245  
 Leu Pro Cys Gly Pro Gly Glu Val Leu Asp Leu Thr Tyr Ser Pro Pro  
    1250                                      1255                                      1260  
 Ala Glu Ala Phe Pro Pro Pro Pro His Phe Ser Phe Pro Ala Pro Leu  
 1265                                      1270                                      1275                                      1280  
 Ser Leu Asp Ala Gly Pro Gly Val Val Pro Leu Gly Thr Pro Asp Ala  
    1285                                      1290                                      1295  
 Gln Ala Asp Pro Ala Ala Leu Ala His Gln Gly Cys Asp Ile Asn Phe  
    1300                                      1305                                      1310  
 Lys Glu Val Leu Glu Asp Met Leu Arg Ser Leu His Ala Gly Pro Pro  
    1315                                      1320                                      1325  
 Ser Glu Gly Ala Leu Gly Glu Gly Ala Gly Ala Gly Gly Ala Ala Gly  
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&lt;210&gt; 3107

&lt;211&gt; 2102

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3107

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 2102

&lt;210&gt; 3108

&lt;211&gt; 517

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3108

Met	Leu	Gln	Glu	Trp	Leu	Ala	Ala	Val	Gly	Asp	Asp	Tyr	Ala	Ala	Val
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Val	Trp	Arg	Pro	Glu	Gly	Glu	Pro	Arg	Phe	Tyr	Pro	Asp	Glu	Glu	Gly
			20					25					30		
Pro	Lys	His	Trp	Thr	Lys	Glu	Arg	His	Gln	Phe	Leu	Met	Glu	Leu	Lys
		35					40					45			
Gln	Glu	Ala	Leu	Thr	Phe	Ala	Arg	Asn	Trp	Gly	Ala	Asp	Tyr	Ile	Leu
		50				55					60				
Phe	Ala	Asp	Thr	Asp	Asn	Ile	Leu	Thr	Asn	Asn	Gln	Thr	Leu	Arg	Leu
65					70				75					80	
Leu	Met	Gly	Gln	Gly	Leu	Pro	Val	Val	Ala	Pro	Met	Leu	Asp	Ser	Gln
			85					90					95		
Thr	Tyr	Tyr	Ser	Asn	Phe	Trp	Cys	Gly	Ile	Thr	Pro	Gln	Gly	Tyr	Tyr
			100					105					110		
Arg	Arg	Thr	Ala	Glu	Tyr	Phe	Pro	Thr	Lys	Asn	Arg	Gln	Arg	Arg	Gly
		115					120					125			
Cys	Phe	Arg	Val	Pro	Met	Val	His	Ser	Thr	Phe	Leu	Ala	Ser	Leu	Arg
		130				135					140				
Ala	Glu	Gly	Ala	Asp	Gln	Leu	Ala	Phe	Tyr	Pro	Pro	His	Pro	Asn	Tyr
145					150				155					160	
Thr	Trp	Pro	Phe	Asp	Asp	Ile	Ile	Val	Phe	Ala	Tyr	Ala	Cys	Gln	Ala
			165					170					175		
Ala	Gly	Val	Ser	Val	His	Val	Cys	Asn	Glu	His	Arg	Tyr	Gly	Tyr	Met

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      180      185      190
Asn Val Pro Val Lys Ser His Gln Gly Leu Glu Asp Glu Arg Val Asn
      195      200      205
Phe Ile His Leu Ile Leu Glu Ala Leu Val Asp Gly Pro Arg Met Gln
      210      215      220
Ala Ser Ala His Val Thr Arg Pro Ser Lys Arg Pro Ser Lys Ile Gly
      225      230      235      240
Phe Asp Glu Val Phe Val Ile Ser Leu Ala Arg Arg Pro Asp Arg Arg
      245      250      255
Glu Arg Met Leu Ala Ser Leu Trp Glu Met Glu Ile Ser Gly Arg Val
      260      265      270
Val Asp Ala Val Asp Gly Trp Met Leu Asn Ser Ser Ala Ile Arg Asn
      275      280      285
Leu Gly Val Asp Leu Leu Pro Gly Tyr Gln Asp Pro Tyr Ser Gly Arg
      290      295      300
Thr Leu Thr Lys Gly Glu Val Gly Cys Phe Leu Ser His Tyr Ser Ile
      305      310      315      320
Trp Glu Glu Val Val Ala Arg Gly Leu Ala Arg Val Leu Val Phe Glu
      325      330      335
Asp Asp Val Arg Phe Glu Ser Asn Phe Arg Gly Arg Leu Glu Arg Leu
      340      345      350
Met Glu Asp Val Glu Ala Glu Lys Leu Ser Trp Asp Leu Ile Tyr Leu
      355      360      365
Gly Arg Lys Gln Val Asn Pro Glu Lys Glu Thr Ala Val Glu Gly Leu
      370      375      380
Pro Gly Leu Val Val Ala Gly Tyr Ser Tyr Trp Thr Leu Ala Tyr Ala
      385      390      395      400
Leu Arg Leu Ala Gly Ala Arg Lys Leu Leu Ala Ser Gln Pro Leu Arg
      405      410      415
Arg Met Leu Pro Val Asp Glu Phe Leu Pro Ile Met Phe Asp Gln His
      420      425      430
Pro Asn Glu Gln Tyr Lys Ala His Phe Trp Pro Arg Asp Leu Val Ala
      435      440      445
Phe Ser Ala Gln Pro Leu Leu Ala Ala Pro Thr His Tyr Ala Gly Asp
      450      455      460
Ala Glu Trp Leu Ser Asp Thr Glu Thr Ser Ser Pro Trp Asp Asp Asp
      465      470      475      480
Ser Gly Arg Leu Ile Ser Trp Ser Gly Ser Gln Lys Thr Leu Arg Ser
      485      490      495
Pro Arg Leu Asp Leu Thr Gly Ser Ser Gly His Ser Leu Gln Pro Gln
      500      505      510
Pro Arg Asp Glu Leu
      515

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&lt;210&gt; 3109

&lt;211&gt; 959

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3109

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gcagcgcacc tgccctttgt taatacaaca tcaccttget ccatatccta ccaaagatcc
120

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cctggaatct ggaaggatct acttcactcg atccctccac agtcagcagg acaactttat  
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 959

&lt;210&gt; 3110

&lt;211&gt; 207

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3110

Met	Tyr	Lys	Arg	Gly	Leu	Val	Gln	Val	Trp	Ser	Leu	Glu	Gln	Pro	Glu
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Trp	His	Cys	Lys	Ile	Asp	Glu	Gly	Ser	Ala	Gly	Leu	Val	Ala	Ser	Cys
			20					25					30		
Trp	Ser	Pro	Asp	Gly	Arg	His	Ile	Leu	Asn	Thr	Thr	Glu	Phe	His	Leu
			35				40					45			
Arg	Ile	Thr	Val	Trp	Ser	Leu	Cys	Thr	Lys	Ser	Val	Ser	Tyr	Ile	Lys
	50					55					60				
Tyr	Pro	Lys	Ala	Cys	Leu	Gln	Gly	Ile	Thr	Phe	Thr	Arg	Asp	Gly	Arg
65					70				75					80	
Tyr	Met	Ala	Leu	Ala	Glu	Arg	Arg	Asp	Cys	Lys	Asp	Tyr	Val	Ser	Ile
			85					90					95		
Phe	Val	Cys	Ser	Asp	Trp	Gln	Leu	Leu	Arg	His	Phe	Asp	Thr	Asp	Thr
			100					105					110		
Gln	Asp	Leu	Thr	Gly	Ile	Glu	Trp	Ala	Pro	Asn	Gly	Cys	Val	Leu	Ala
		115					120					125			
Val	Trp	Asp	Thr	Cys	Leu	Glu	Tyr	Lys	Ile	Leu	Leu	Tyr	Ser	Leu	Asp
	130						135				140				
Gly	Arg	Leu	Leu	Ser	Thr	Tyr	Ser	Ala	Xaa	Arg	Val	Val	Xaa	Leu	Gly

145		150		155		160									
Ile	Lys	Ser	Val	Ala	Trp	Ser	Pro	Ser	Ser	Gln	Phe	Leu	Ala	Val	Gly
		165				170								175	
Ser	Tyr	Asp	Gly	Lys	Val	Arg	Ile	Leu	Asn	His	Val	Thr	Trp	Lys	Met
		180						185					190		
Ile	Thr	Glu	Phe	Gly	His	Pro	Cys	Ser	Pro	Ile	Asn	Asp	Ser	Gln	
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&lt;210&gt; 3111

&lt;211&gt; 1269

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3111

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<210> 3112  
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 35 40 45  
 Arg Asp Trp Glu Glu Arg Arg Gly Val Thr Thr Val Gln His Pro Glu  
 50 55 60  
 Lys Ser Asp Trp Gln Thr Arg Thr Gly Gln Pro Cys Ser Cys Met Ile  
 65 70 75 80  
 Gln Glu Leu Ala Ser Glu Arg Glu Ser Val Ala Glu Ala Gly Gly Ser  
 85 90 95  
 Ala Arg Gln Lys Val Arg Gly Leu Val Leu Arg Arg Gly Lys Arg Gln  
 100 105 110  
 Ser Glu Ser Leu His Ala Pro Gly Leu His Gly Arg Ala Arg Ala Ser  
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<210> 3114  
 <211> 210  
 <212> PRT  
 <213> Homo sapiens

<400> 3114  
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 Ile Val Ala Ile Met Ile Pro Glu Pro Lys Gly Lys Glu Ile Val Ser  
 35 40 45  
 Leu Leu Glu Arg Asn Ile Thr Val Thr Met Tyr Ile Thr Ile Gly Thr  
 50 55 60  
 Arg Asn Leu Gln Lys Tyr Val Ser Arg Thr Ser Val Val Phe Val Ser  
 65 70 75 80  
 Ile Ser Phe Ile Val Leu Met Ile Ile Ser Leu Ala Trp Leu Val Phe  
 85 90 95  
 Tyr Tyr Ile Gln Arg Phe Arg Tyr Ala Asn Ala Arg Asp Arg Asn Gln  
 100 105 110  
 Arg Arg Leu Gly Asp Ala Ala Lys Lys Ala Ile Ser Lys Leu Gln Ile  
 115 120 125  
 Arg Thr Ile Lys Lys Gly Asp Lys Glu Thr Glu Ser Asp Phe Asp Asn  
 130 135 140  
 Cys Ala Val Cys Ile Glu Gly Tyr Lys Pro Asn Asp Val Val Arg Ile  
 145 150 155 160  
 Leu Pro Cys Arg His Leu Phe His Lys Ser Cys Val Asp Pro Trp Leu  
 165 170 175  
 Leu Asp His Arg Thr Cys Pro Met Cys Lys Met Asn Ile Leu Lys Ala  
 180 185 190  
 Leu Gly Ile Pro Pro Asn Ala Asp Cys Met Asp Asp Phe Ala Thr Asp  
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 Phe Glu  
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<210> 3115  
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 <212> DNA  
 <213> Homo sapiens

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 1366

&lt;210&gt; 3116

&lt;211&gt; 191

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3116

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Val	Leu	Tyr	Phe	Ala	Gln	Ser	Glu	Asn	Ile	Ala	Ala	His	Glu	Asn	Cys
			20					25					30		
Leu	Leu	Tyr	Ser	Ser	Gly	Leu	Val	Glu	Cys	Glu	Asp	Gln	Asp	Pro	Leu
		35					40				45				
Asn	Pro	Asp	Arg	Ser	Phe	Asp	Val	Glu	Ser	Val	Lys	Lys	Glu	Ile	Gln

50	55	60
Arg Gly Arg Lys Leu Lys Cys Lys Phe Cys His Lys Arg Gly Ala Thr		
65	70	75
Val Gly Cys Asp Leu Lys Asn Cys Asn Lys Asn Tyr His Phe Phe Cys		80
	85	90
Ala Lys Lys Asp Asp Ala Val Pro Gln Ser Asp Gly Val Arg Gly Ile		95
	100	105
Tyr Lys Leu Leu Cys Gln Gln His Ala Gln Phe Pro Ile Ile Ala Gln		110
	115	120
Ser Gly Lys Phe Ser Gly Val Lys Arg Lys Arg Gly Arg Lys Lys Pro		125
	130	135
Leu Ser Gly Asn His Val Gln Pro Pro Glu Thr Met Lys Cys Asn Thr		140
	145	150
Phe Ile Arg Gln Val Lys Glu Glu His Gly Arg His Thr Asp Ala Thr		155
	160	165
Val Lys Val Pro Phe Leu Lys Lys Cys Lys Xaa Ser Arg Thr Ser		170
	175	180
	185	190

&lt;210&gt; 3117

&lt;211&gt; 1373

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3117

```

nnaaccaga agcaaaagag cagagctacc atgtcctctt ggagcagaca gcgacaaaa
60
agcccagggg gcattcaacc ccatgtttct agaactctgt tctgctgct gctgttggca
120
gcctcagcct ggggggtcac cctgagcccc aaagactgcc aggtgttccg ctcagaccat
180
ggcagctcca tctcctgtca accacctgcc gaaatccccg gctacctgcc agccgacacc
240
gtgcacctgg ccgtggaatt cttcaacctg acccacctgc cagccaacct cctccagggc
300
gcctctaagc tccaagaatt gcacctctcc agcaatgggc tggaaagcct ctgcccga
360
ttcctgcggc cagtgcgca gctgaggggtg ctggatctaa cccgaaacgc cctgaccggg
420
ctgcccccg gcctcttcca ggcctcagcc accctggaca ccctggtatt gaaagaaaac
480
cagctggagg tcttgagggt ctcgtggcta cacggcctga aagctctggg gcatctggac
540
ctgtctggga accgcctccg gaaactgcc cccgggctgc tggccaactt caccctctg
600
cgcacccttg accttgggga gaaccagttg gagaccttgc cacctgacct cctgaggggt
660
ccgctgcaat tagaacggct acatctagaa ggcaacaaat tgcaagtact gggaaaagat
720
ctcctcttgc cgcagccgga cctgcgctac ctcttctga gcgcaacaa gctggccagg
780
gtggcagccg gtgccttcca gggcctgcgg cagctggaca tgctggacct ctccaataac
840
tcactggcca gcgtgcccga ggggctctgg gcatccctag ggagccaaa ctgggacatg
900

```

cgggatggct tcgacatctc cggcaacccc tggatctgtg accagaacct gagcgacctc  
 960  
 tatcgttggc ttcaggccca aaaagacaag atgttttccc agaattgacac gcgctgtgct  
 1020  
 gggcctgaag ccgtgaaggg ccagacgctc ctggcagtgg ccaagtccca gtgagaccag  
 1080  
 gggcttgggt tgaggggtggg gggctctggta gaacactgca acccgcttaa caaataatcc  
 1140  
 tgcccttggc cgggtgcggg ggctcacgcc tgtaatccca gcactttggg gagggccagg  
 1200  
 tggcggaatc acgaggtcag gagatcgaga ccattctggc taacatggtg aaaccctgtc  
 1260  
 tctactaaaa atataaaaaa ttagccaggc gtgggtggtg gcacctgtag tcccagcaac  
 1320  
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 1373

<210> 3118  
 <211> 312  
 <212> PRT  
 <213> Homo sapiens

<400> 3118  
 Val Thr Leu Ser Pro Lys Asp Cys Gln Val Phe Arg Ser Asp His Gly  
 1 5 10 15  
 Ser Ser Ile Ser Cys Gln Pro Pro Ala Glu Ile Pro Gly Tyr Leu Pro  
 20 25 30  
 Ala Asp Thr Val His Leu Ala Val Glu Phe Phe Asn Leu Thr His Leu  
 35 40 45  
 Pro Ala Asn Leu Leu Gln Gly Ala Ser Lys Leu Gln Glu Leu His Leu  
 50 55 60  
 Ser Ser Asn Gly Leu Glu Ser Leu Ser Pro Glu Phe Leu Arg Pro Val  
 65 70 75 80  
 Pro Gln Leu Arg Val Leu Asp Leu Thr Arg Asn Ala Leu Thr Gly Leu  
 85 90 95  
 Pro Pro Gly Leu Phe Gln Ala Ser Ala Thr Leu Asp Thr Leu Val Leu  
 100 105 110  
 Lys Glu Asn Gln Leu Glu Val Leu Glu Val Ser Trp Leu His Gly Leu  
 115 120 125  
 Lys Ala Leu Gly His Leu Asp Leu Ser Gly Asn Arg Leu Arg Lys Leu  
 130 135 140  
 Pro Pro Gly Leu Leu Ala Asn Phe Thr Leu Leu Arg Thr Leu Asp Leu  
 145 150 155 160  
 Gly Glu Asn Gln Leu Glu Thr Leu Pro Pro Asp Leu Leu Arg Gly Pro  
 165 170 175  
 Leu Gln Leu Glu Arg Leu His Leu Glu Gly Asn Lys Leu Gln Val Leu  
 180 185 190  
 Gly Lys Asp Leu Leu Leu Pro Gln Pro Asp Leu Arg Tyr Leu Phe Leu  
 195 200 205  
 Ser Gly Asn Lys Leu Ala Arg Val Ala Ala Gly Ala Phe Gln Gly Leu  
 210 215 220  
 Arg Gln Leu Asp Met Leu Asp Leu Ser Asn Asn Ser Leu Ala Ser Val  
 225 230 235 240  
 Pro Glu Gly Leu Trp Ala Ser Leu Gly Gln Pro Asn Trp Asp Met Arg

```

                245                250                255
Asp Gly Phe Asp Ile Ser Gly Asn Pro Trp Ile Cys Asp Gln Asn Leu
                260                265                270
Ser Asp Leu Tyr Arg Trp Leu Gln Ala Gln Lys Asp Lys Met Phe Ser
                275                280                285
Gln Asn Asp Thr Arg Cys Ala Gly Pro Glu Ala Val Lys Gly Gln Thr
                290                295                300
Leu Leu Ala Val Ala Lys Ser Gln
305                310

```

&lt;210&gt; 3119

&lt;211&gt; 427

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3119

```

gtacacatgg tgctcaacca gcagggccgg ccacgaggcg atgccttcat tcagatgaca
60
tcagcagagc gagccctagc tgctgctcag cgttgccata agaaggtgat gaaggagcgc
120
tacgtggagg tggccccctg ttccacagag gagatgagcc gagtgctgat ggggggcacc
180
ttggggccgca gtggcatgtc cctccacccc tgcaagctgc cctgcctctc accacctacc
240
tacaccacct tccaagccac cccaacgctc attccacagg agacggcagc tctatacccc
300
tcttcagcac tgctcccagc tgccagggtg cctgctgccc ccaccctgt tgcttactat
360
ccaggjccag ccaactcaact ctacctgaac tacacagcct actaccaag cccgaagac
420
aacgcgt
427

```

&lt;210&gt; 3120

&lt;211&gt; 142

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3120

```

Val His Met Val Leu Asn Gln Gln Gly Arg Pro Ser Gly Asp Ala Phe
1      5      10      15
Ile Gln Met Thr Ser Ala Glu Arg Ala Leu Ala Ala Gln Arg Cys
20     25     30
His Lys Lys Val Met Lys Glu Arg Tyr Val Glu Val Val Pro Cys Ser
35     40     45
Thr Glu Glu Met Ser Arg Val Leu Met Gly Gly Thr Leu Gly Arg Ser
50     55     60
Gly Met Ser Pro Pro Pro Cys Lys Leu Pro Cys Leu Ser Pro Pro Thr
65     70     75     80
Tyr Thr Thr Phe Gln Ala Thr Pro Thr Leu Ile Pro Thr Glu Thr Ala
85     90     95
Ala Leu Tyr Pro Ser Ser Ala Leu Leu Pro Ala Ala Arg Val Pro Ala
100    105    110
Ala Pro Thr Pro Val Ala Tyr Tyr Pro Gly Pro Ala Thr Gln Leu Tyr

```



atgcagcaag aggccagca tgtgctgttc ctcagcaaga accaggccat ccggcagcca  
 300  
 gaggtgcagg cagctcccaa ggagaagtct gagcagaaaa aagc  
 344

<210> 3124

<211> 92

<212> PRT

<213> Homo sapiens

<400> 3124

Met	Arg	Ser	Arg	Gln	Glu	Met	Lys	Asn	Pro	Ile	Ser	Asn	Lys	Lys	Arg
1				5					10					15	
Lys	Lys	Ala	Ala	Gln	Val	Thr	Phe	Arg	Lys	Thr	Leu	Glu	Lys	Glu	Ala
		20						25					30		
Lys	Gly	Glu	Glu	Pro	Asp	Ile	Ala	Val	Pro	Lys	Phe	Lys	Gln	Arg	Lys
	35						40					45			
Gly	Glu	Ser	Asp	Gly	Ala	Tyr	Ile	His	Arg	Met	Gln	Gln	Glu	Ala	Gln
	50					55					60				
His	Val	Leu	Phe	Leu	Ser	Lys	Asn	Gln	Ala	Ile	Arg	Gln	Pro	Glu	Val
65				70						75				80	
Gln	Ala	Ala	Pro	Lys	Glu	Lys	Ser	Glu	Gln	Lys	Lys				
				85						90					

<210> 3125

<211> 647

<212> DNA

<213> Homo sapiens

<400> 3125

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 60  
 acattaggaa ggtgctgagg aaagccatta agcatccaca gctccactgc ctaggcagat  
 120  
 ggtcagcagg cagtttagtt gtgggagtat ttccaatttg catgaatgaa acatggacaa  
 180  
 ataagataag gctggctcca gggaagtaat tccccagtt cccctgagcc ttggatctgg  
 240  
 aaaactgcag cccatcctgg aattagggaa catcacaaaa cgtactgggg agaactcccc  
 300  
 atgtggcctc ggcccacgcc agaagccggg caaggtccca agtgccggct cgcccacaag  
 360  
 ctatggctaa gacagaaaaa caaaggaaaa aaagtcctcc ccaaacacac acataagcaa  
 420  
 aacccatctt cctgtgttct ctgccaagag agctggagca aaagagatga gtttgagact  
 480  
 ctgattcatc catcaagaca aataaactca gtctatggag gttagcaggg caatttgtga  
 540  
 agcaaacaaa agttgagttt tggaaggagg ctctgaagaa aatgaagatg acataccagg  
 600  
 aatttaactt catgacaaga agagaaagtg actcactctt gacgcgt  
 647

<210> 3126



&lt;211&gt; 116

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3126

```

Met Lys Leu Asn Ser Trp Tyr Val Ile Phe Ile Phe Phe Arg Ala Pro
 1             5             10             15
Phe Gln Asn Ser Thr Phe Val Cys Phe Thr Asn Cys Pro Ala Asn Leu
          20             25             30
His Arg Leu Ser Leu Phe Val Leu Met Asp Glu Ser Glu Ser Gln Thr
          35             40             45
His Leu Phe Cys Ser Ser Ser Leu Gly Arg Glu His Arg Lys Met Gly
          50             55             60
Phe Ala Tyr Val Cys Val Trp Gly Gly Leu Phe Phe Leu Cys Phe Ser
65             70             75             80
Val Leu Ala Ile Ala Cys Gly Arg Ala Gly Thr Trp Asp Leu Ala Arg
          85             90             95
Leu Leu Ala Trp Ala Glu Ala Thr Trp Gly Val Leu Pro Ser Thr Phe
          100            105            110
Cys Asp Val Pro
          115

```

&lt;210&gt; 3127

&lt;211&gt; 2218

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3127

```

ncagaagtta gccaaagtga acttaatgaa atcaatcagt tcttgggacc cgtggaaaaa
60
ttcttctactg aagaggtgga ctcccgaaaa attgaccagg aagggaataat ccagatgaa
120
acttttgaga aattgaagag cctagggctt tttgggctgc aagtcccaga agaatatggt
180
ggcctgggct tctccaacac catgtactca agactagggg agatcatcag catggatggg
240
tccatcactg tgaccctggc agcgcaccag gctattggcc tcaaggggat catcttggct
300
ggcactgagg agcagaaagc caaatacttg cctaaactgg cgtccgggga gcacatagca
360
gccttctgcc tcacggagcc agccagtggg agcgatgcag cctcaatccg gagcagagcc
420
acactaagtg aagacaagaa gcactacatc ctcaatggct ccaaggtctg gattactaat
480
ggaggactgg ccaatatctt tactgtgttt gcaaagactg aggtcgttga ttctgatgga
540
tcagtgaaag acaagatcac agcattcata gtagaaagag actttggtgg agtcactaat
600
gggaaacccg aagataaatt aggcattcgg ggctccaaca cttgtgaagt ccattttgaa
660
aacaccaaga tacctgtgga aaacatcctt ggagaggteg gagatgggtt taagggtggc
720
atgaacatcc tcaacagcgg ccggttcagc atgggcagcg tcgtggctgg gctgctcaag
780

```

agattgattg aaatgactgc tgagtacgcc tgcacaagga aacagtttaa caagaggctc  
840  
agtgaatttg gattgattca ggagaaattt gcactgatgg ctgagaaggc ttacgtcatg  
900  
gagagtatga cctacctcac agcaggggatg ctggaccaac ctggctttcc cgactgctcc  
960  
atcgaggcag ccatggtgaa ggtgttcagc tccgaggccg cctggcagtg tgtgagtgag  
1020  
gcgctgcaga tcttcggggg cttgggctac acaagggaact atccgtacga ggcatactg  
1080  
cgtgacaccc gcacccctct catcttcgag ggaaccaatg agattctccg gatgtacatc  
1140  
gccctgacgg gtctgcagca tgccggccgc atcctgacta ccaggatcca tgagcttaaa  
1200  
caggccaaag tgagcacagt catggatacc gttggccgga ggcttcggga ctccctggg  
1260  
cgaactgtgg acctggggct gacaggcaac catggagttg tgcacccag tcttgccgac  
1320  
agtgcacaaca agtttgagga gaacacctac tgcttcggcc ggaccgtgga gacactgctg  
1380  
ctccgctttg gcaagaccat catggaggag cagctggtac tgaagcgggt ggccaacatc  
1440  
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1500  
gggctccgca accacgacca cgagggttctc ttggccaaca ccttctgctt ggaagcttac  
1560  
ttgcagaatc tcttcagcct ctctcagctg gacaagtatg ctccagaaaa cctagatgag  
1620  
cagattaaga aagtgtccca gcagatcctt gagaagcgag cctatatctg tgccccacct  
1680  
ctggacagga catgctgagg caggggacag tgtccctgc taccgccgc ccctacccat  
1740  
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1800  
agccttttgt tccccgtctg cacctgaagg gttgtgcctt ggccctgggag agcctcttcc  
1860  
aggttttgac ctgcaggcag tgctctctaa caggaccatc acagcttctg aactgagccg  
1920  
gagagagaga atggaattgc tgaccctcg aactggcggg tattctggtc attgaggaga  
1980  
caccatagtg gaaactgggg cttatgctgc tgcctccagg gtgtgaggtg ggtggggacc  
2040  
tgtgtcaggt gtggatagcc atttctgctc aaccacacat tctctaagaa acagcttgaa  
2100  
agctctgtct gggtcattca tttaaactag aagcagaggc acttaaaaca tgtaccagga  
2160  
accatttaac aaagaatata aaatgtcaca atctgtgtac tgttaaaaaa aaaaaaaa  
2218

&lt;210&gt; 3128

&lt;211&gt; 565

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3128

```

Xaa Glu Val Ser Gln Asp Glu Leu Asn Glu Ile Asn Gln Phe Leu Gly
 1           5           10           15
Pro Val Glu Lys Phe Phe Thr Glu Glu Val Asp Ser Arg Lys Ile Asp
      20           25           30
Gln Glu Gly Lys Ile Pro Asp Glu Thr Leu Glu Lys Leu Lys Ser Leu
      35           40           45
Gly Leu Phe Gly Leu Gln Val Pro Glu Glu Tyr Gly Gly Leu Gly Phe
      50           55           60
Ser Asn Thr Met Tyr Ser Arg Leu Gly Glu Ile Ile Ser Met Asp Gly
65           70           75           80
Ser Ile Thr Val Thr Leu Ala Ala His Gln Ala Ile Gly Leu Lys Gly
      85           90           95
Ile Ile Leu Ala Gly Thr Glu Glu Gln Lys Ala Lys Tyr Leu Pro Lys
      100          105          110
Leu Ala Ser Gly Glu His Ile Ala Ala Phe Cys Leu Thr Glu Pro Ala
      115          120          125
Ser Gly Ser Asp Ala Ala Ser Ile Arg Ser Arg Ala Thr Leu Ser Glu
      130          135          140
Asp Lys Lys His Tyr Ile Leu Asn Gly Ser Lys Val Trp Ile Thr Asn
145          150          155          160
Gly Gly Leu Ala Asn Ile Phe Thr Val Phe Ala Lys Thr Glu Val Val
      165          170          175
Asp Ser Asp Gly Ser Val Lys Asp Lys Ile Thr Ala Phe Ile Val Glu
      180          185          190
Arg Asp Phe Gly Gly Val Thr Asn Gly Lys Pro Glu Asp Lys Leu Gly
      195          200          205
Ile Arg Gly Ser Asn Thr Cys Glu Val His Phe Glu Asn Thr Lys Ile
      210          215          220
Pro Val Glu Asn Ile Leu Gly Glu Val Gly Asp Gly Phe Lys Val Ala
225          230          235          240
Met Asn Ile Leu Asn Ser Gly Arg Phe Ser Met Gly Ser Val Val Ala
      245          250          255
Gly Leu Leu Lys Arg Leu Ile Glu Met Thr Ala Glu Tyr Ala Cys Thr
      260          265          270
Arg Lys Gln Phe Asn Lys Arg Leu Ser Glu Phe Gly Leu Ile Gln Glu
      275          280          285
Lys Phe Ala Leu Met Ala Gln Lys Ala Tyr Val Met Glu Ser Met Thr
      290          295          300
Tyr Leu Thr Ala Gly Met Leu Asp Gln Pro Gly Phe Pro Asp Cys Ser
305          310          315          320
Ile Glu Ala Ala Met Val Lys Val Phe Ser Ser Glu Ala Ala Trp Gln
      325          330          335
Cys Val Ser Glu Ala Leu Gln Ile Leu Gly Gly Leu Gly Tyr Thr Arg
      340          345          350
Asp Tyr Pro Tyr Glu Arg Ile Leu Arg Asp Thr Arg Ile Leu Leu Ile
      355          360          365
Phe Glu Gly Thr Asn Glu Ile Leu Arg Met Tyr Ile Ala Leu Thr Gly
      370          375          380
Leu Gln His Ala Gly Arg Ile Leu Thr Thr Arg Ile His Glu Leu Lys
385          390          395          400
Gln Ala Lys Val Ser Thr Val Met Asp Thr Val Gly Arg Arg Leu Arg
      405          410          415
Asp Ser Leu Gly Arg Thr Val Asp Leu Gly Leu Thr Gly Asn His Gly

```

```

          420          425          430
Val Val His Pro Ser Leu Ala Asp Ser Ala Asn Lys Phe Glu Glu Asn
          435          440          445
Thr Tyr Cys Phe Gly Arg Thr Val Glu Thr Leu Leu Leu Arg Phe Gly
          450          455          460
Lys Thr Ile Met Glu Glu Gln Leu Val Leu Lys Arg Val Ala Asn Ile
465          470          475          480
Leu Ile Asn Leu Tyr Gly Met Thr Ala Val Leu Ser Arg Ala Ser Arg
          485          490          495
Ser Ile Arg Ile Gly Leu Arg Asn His Asp His Glu Val Leu Leu Ala
          500          505          510
Asn Thr Phe Cys Val Glu Ala Tyr Leu Gln Asn Leu Phe Ser Leu Ser
          515          520          525
Gln Leu Asp Lys Tyr Ala Pro Glu Asn Leu Asp Glu Gln Ile Lys Lys
          530          535          540
Val Ser Gln Gln Ile Leu Glu Lys Arg Ala Tyr Ile Cys Ala His Pro
545          550          555          560
Leu Asp Arg Thr Cys
          565

```

&lt;210&gt; 3129

&lt;211&gt; 1964

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3129

```

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60
atagggagtt ggagatgcta accaagcatg gagttttcac atggtctatt tctgctgagt
120
tcagggactt ggagacagcc ttttaacttct ggcaaaaaga caatttcaca aagggtgttta
180
aaaccatcct ttggtttttg atcctgagtc agagacggac atgtgcttat gaaagaagg
240
agagtttcaa cccttaggta accttaaaag agcaggaact atgttgtgtg taagtcatgt
300
gcagtataca aacttgatat taaatgacaa attggaacaa tctttctcta ggaatgcctc
360
tctttcatag aggcatacaca gtgagtcctt taaagccttg atctagggtg gttacagatg
420
ggcttacaga gtatgaatgc acgataagaa ggaaattgga tagggagtga ggatatgaaa
480
tttaaaagaa ggaagaagag aaaacgagat ttaagacag gaaatgaagc tctgtgtgtg
540
tgtgtgtgtg tgtgctgtgt tgtgtgtgca cgcgtgctgt cgtgtgtgca cgtgctgtgt
600
tgtgtggttg gcaggcctag tgatcctgtt gtttagtgct tctgagattt gagttgtgcc
660
tttttacttt gcataaagta gatacttggc catatgtagt tccaaggaga agtcagagtt
720
ccaccttgg agtctttcct tctgattcac gattttcttt caacaatttt ccacttagga
780
atccatcaca aaagttttgc acatgctcta cggaacttc tgctgtgggc agtgtatccc
840

```

actcgtcatc tagagtctgg taaattgcc aagctggcag ttgagactcc tttagtttga  
 900  
 aaaatgatat caccttccca ttttctttca taccactgtc caccagaata aagagaatct  
 960  
 tcccctggaa gagcttggtt gccttctggt atctgtgcat gttctcttca tactctgggg  
 1020  
 aggccttggt cattatcagg aggagatgaa tctgaattac gctgttgaat aaccaatca  
 1080  
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 1140  
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 1200  
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 1260  
 gccatggaat tcattgctgc cactgagggt gctgtcatag gcttcttcca ggatttagaa  
 1320  
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 1380  
 atcagcactg attctgaggt tctgacacac tacaacatca ctgggaacac catctgcctc  
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 1560  
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 1680  
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 1740  
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 1800  
 gatgacgagt gggatacact gccacagca gaagtttccg tagagcatgt gcaaaacttt  
 1860  
 tgtgatggat tcctaagtgg aaaattgttg aaagaaaatc gtgaatcgaa aagaaagact  
 1920  
 cccaagggtg aactctgact tctccttgga actacatatg gcca  
 1964

&lt;210&gt; 3130

&lt;211&gt; 273

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3130

Met	Glu	Ala	Ala	Pro	Ser	Arg	Phe	Met	Phe	Leu	Leu	Phe	Leu	Leu	Thr
1			5					10					15		
Cys	Glu	Leu	Ala	Ala	Glu	Val	Ala	Ala	Glu	Val	Glu	Lys	Ser	Ser	Asp
			20				25					30			
Gly	Pro	Gly	Ala	Ala	Gln	Glu	Pro	Thr	Trp	Leu	Thr	Asp	Val	Pro	Ala
		35				40					45				
Ala	Met	Glu	Phe	Ile	Ala	Ala	Thr	Glu	Val	Ala	Val	Ile	Gly	Phe	Phe
	50				55					60					
Gln	Asp	Leu	Glu	Ile	Pro	Ala	Val	Pro	Ile	Leu	His	Ser	Met	Val	Gln

```

65          70          75          80
Lys Phe Pro Gly Val Ser Phe Gly Ile Ser Thr Asp Ser Glu Val Leu
          85          90          95
Thr His Tyr Asn Ile Thr Gly Asn Thr Ile Cys Leu Phe Arg Leu Val
          100          105          110
Asp Asn Glu Gln Leu Asn Leu Glu Asp Glu Asp Ile Glu Ser Ile Asp
          115          120          125
Ala Thr Lys Leu Ser Arg Phe Ile Glu Ile Asn Ser Leu His Met Val
          130          135          140
Thr Glu Tyr Asn Pro Val Thr Val Ile Gly Leu Phe Asn Ser Val Ile
          145          150          155          160
Gln Ile His Leu Leu Ile Met Asn Lys Ala Ser Pro Glu Tyr Glu
          165          170          175
Glu Asn Met His Arg Tyr Gln Lys Ala Ala Lys Leu Phe Gln Gly Lys
          180          185          190
Ile Leu Phe Ile Leu Val Asp Ser Gly Met Lys Glu Asn Gly Lys Val
          195          200          205
Ile Ser Phe Phe Lys Leu Lys Glu Ser Gln Leu Pro Ala Leu Ala Ile
          210          215          220
Tyr Gln Thr Leu Asp Asp Glu Trp Asp Thr Leu Pro Thr Ala Glu Val
          225          230          235          240
Ser Val Glu His Val Gln Asn Phe Cys Asp Gly Phe Leu Ser Gly Lys
          245          250          255
Leu Leu Lys Glu Asn Arg Glu Ser Lys Arg Lys Thr Pro Lys Val Glu
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<210> 3131
<211> 1544
<212> DNA
<213> Homo sapiens

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300
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420
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600

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 1440  
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&lt;210&gt; 3132

&lt;211&gt; 283

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3132

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Gly	Ser	Thr	Gly	Thr	Ala	Glu	Gly	Gly	Asn	Met	Ser	Arg	Leu	Ser	Leu
			20					25					30		
Thr	Arg	Ser	Pro	Val	Ser	Pro	Leu	Ala	Ala	Gln	Gly	Ile	Pro	Leu	Pro
			35				40					45			
Ala	Gln	Leu	Thr	Lys	Ser	Asn	Ala	Pro	Val	His	Ile	Asp	Val	Gly	Gly
			50			55					60				
His	Met	Tyr	Thr	Ser	Ser	Leu	Ala	Thr	Leu	Thr	Lys	Tyr	Pro	Glu	Ser
65					70					75				80	
Arg	Ile	Gly	Arg	Leu	Phe	Asp	Gly	Thr	Glu	Pro	Ile	Val	Leu	Asp	Ser
			85					90						95	
Leu	Lys	Gln	His	Tyr	Phe	Ile	Asp	Arg	Asp	Gly	Gln	Met	Phe	Arg	Tyr
			100					105					110		
Ile	Leu	Asn	Phe	Leu	Arg	Thr	Ser	Lys	Leu	Leu	Ile	Pro	Asp	Asp	Phe

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      115      120      125
Lys Asp Tyr Thr Leu Leu Tyr Glu Glu Ala Lys Tyr Phe Gln Leu Gln
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Pro Met Leu Leu Glu Met Glu Arg Trp Lys Gln Asp Arg Glu Thr Gly
145      150      155      160
Arg Phe Ser Arg Pro Cys Glu Cys Leu Val Val Arg Val Ala Pro Asp
      165      170      175
Leu Gly Glu Arg Ile Thr Leu Ser Gly Asp Lys Ser Leu Ile Glu Glu
      180      185      190
Val Phe Pro Glu Ile Gly Asp Val Met Cys Asn Ser Val Asn Ala Gly
      195      200      205
Trp Asn His Asp Ser Thr His Val Ile Arg Phe Pro Leu Asn Gly Tyr
      210      215      220
Cys His Leu Asn Ser Val Gln Val Leu Glu Arg Leu Gln Gln Arg Gly
225      230      235      240
Phe Glu Ile Val Gly Ser Cys Gly Gly Gly Val Asp Ser Ser Gln Phe
      245      250      255
Ser Glu Tyr Val Leu Arg Arg Glu Leu Arg Arg Thr Pro Arg Val Pro
      260      265      270
Ser Val Ile Arg Ile Lys Gln Glu Pro Leu Asp
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 <212> DNA  
 <213> Homo sapiens

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<210> 3134  
 <211> 51  
 <212> PRT



<213> Homo sapiens

<400> 3134

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Ala	Val	Arg	Gln	Val	Pro	Ser	Ser	Cys	Ala	Ala	Ser	Arg	Lys	Asn	Glu
		20					25					30			
Thr	Glu	Val	Lys	Ser	Glu	Glu	Gly	Pro	Gly	Trp	Thr	Ile	Leu	Arg	Asp
		35				40					45				
Asp	Phe	Met													
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<210> 3135

<211> 3166

<212> DNA

<213> Homo sapiens

<400> 3135

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180
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300
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<210> 3136
<211> 278
<212> PRT
<213> Homo sapiens
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			20					25					30		
Lys	Cys	Pro	Ile	Cys	Gln	Thr	Val	Lys	Ala	Asn	Gln	Leu	Glu	Leu	Glu
		35					40					45			
Thr	His	Thr	Arg	Glu	His	Arg	Leu	Gly	Asn	His	Tyr	Lys	Cys	Asp	Gln
	50					55					60				
Cys	Gly	Tyr	Leu	Ser	Lys	Thr	Ala	Asn	Lys	Leu	Ile	Glu	His	Val	Arg
65					70					75					80
Val	His	Thr	Gly	Ser	Gly	Pro	Phe	His	Trp	Asp	Gln	Cys	Ser	Tyr	Ser
				85					90					95	
Cys	Lys	Arg	Lys	Asp	Asn	Leu	Asn	Leu	His	Lys	Lys	Leu	Lys	His	Ala
			100					105					110		
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		115					120					125			
Pro	Phe	Val	Phe	Ser	Arg	His	Val	Lys	Lys	His	Gln	Ser	Gly	Asp	Cys
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Pro	Glu	Glu	Asp	Lys	Lys	Gly	Leu	Cys	Pro	Ala	Pro	Lys	Glu	Pro	Ala
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				165					170					175	
Ser	Pro	Leu	Ser	Val	Met	Ser	Ala	Ser	Gln	Ala	Leu	Gln	Thr	Val	Ala
			180					185					190		
Leu	Ser	Ala	Ala	His	Gly	Ser	Ser	Ser	Glu	Pro	Asn	Leu	Ala	Leu	Lys
	195						200					205			
Ala	Leu	Ala	Phe	Asn	Gly	Ser	Pro	Leu	Arg	Phe	Asp	Lys	Tyr	Arg	Asn
	210					215					220				
Ser	Asp	Phe	Ala	His	Leu	Ile	Pro	Leu	Thr	Met	Leu	Tyr	Pro	Lys	Asn
225					230					235					240
His	Leu	Asp	Leu	Thr	Phe	His	Pro	Pro	Arg	Pro	Gln	Thr	Ala	Pro	Pro

	245		250		255
Ser Ile Pro	Ser Pro Lys His Ser	Phe Leu Ala Tyr Leu Gly	Leu Arg		
	260	265	270		
Glu Arg Ala	Glu Thr Val				
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&lt;211&gt; 5773

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3137

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1260

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 <212> PRT  
 <213> Homo sapiens

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2356



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 Ser Phe Val Leu Ser Leu Ala Ser Leu Asn Ala Thr Lys Leu Lys His  
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 Tyr Phe Phe Leu Phe Asn Thr Phe Val Gln Lys Gln Gly Ile Arg Ala  
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 Gly Asp Leu Leu Leu Arg His Ser Ala Leu Arg His Met Ile Ser Phe  
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 Val Leu His Ser Asp Val Ser Ser Gln Arg Asn Val Ala Pro Gly Ile  
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 Phe Lys Gln Arg Pro Pro Ile Ser Ile Ala Pro Ser Ser Pro Leu Leu  
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 Pro Leu His Glu Glu Val Glu Ala Leu Leu Phe Met Ser Glu Gly Lys  
                     740                      745                      750  
 Pro Tyr Leu Leu Glu Val Met Phe Ala Leu Arg Glu Leu Thr Gly Ser  
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 Leu Val Ile Glu Asp Pro Ile Gln Ala Glu Arg Val Lys Phe Val Phe  
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 Glu Thr Glu Asn Gly Leu Leu Ala Leu Met His His Ser Asn His Val  
                     835                      840                      845  
 Asp Ser Ser Arg Cys Tyr Gln Cys Val Lys Phe Leu Val Thr Leu Ala  
                     850                      855                      860  
 Gln Lys Cys Pro Ala Ala Lys Glu Tyr Phe Lys Glu Asn Ser His His  
 865                      870                      875                      880  
 Trp Ser Trp Ala Val Gln Trp Leu Gln Lys Lys Met Ser Glu His Tyr

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Trp Thr Pro Gln Ser Asn Val Ser Asn Glu Thr Ser Thr Gly Lys Thr
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Phe Gln Arg Thr Ile Ser Ala Gln Asp Ala Leu Ala Tyr Ala Thr Ala
      915              920              925
Leu Leu Asn Glu Lys Glu Gln Ser Gly Ser Ser Asn Gly Ser Glu Ser
      930              935              940
Ser Pro Ala Asn Glu Asn Gly Asp Arg His Leu Gln Gln Gly Ser Glu
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<210> 3139

<211> 503

<212> DNA

<213> Homo sapiens

<400> 3139

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<210> 3140

<211> 115

<212> PRT

<213> Homo sapiens

<400> 3140

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      20           25           30
Leu Asn Lys Ser Ser Asn Trp Gly Thr Ser Pro Leu Leu Trp Tyr Phe
      35           40           45
Tyr Ser Ala Leu Pro Arg Gly Leu Gly Cys Ser Leu Leu Phe Ile Pro
      50           55           60
Leu Gly Leu Val Asp Arg Arg Thr His Ala Pro Thr Val Leu Ala Leu

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65		70		75		80									
Gly	Phe	Met	Ala	Leu	Tyr	Ser	Leu	Leu	Pro	His	Lys	Glu	Leu	Arg	Phe
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Ile	Ile	Tyr	Ala	Phe	Pro	Met	Leu	Asn	Ile	Thr	Ala	Ala	Arg	Gly	Cys
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<211> 451

<212> PRT

<213> Homo sapiens

<400> 3142

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			20					25					30		
Pro	Glu	Gly	Ile	Val	Glu	Glu	Phe	Ala	Thr	Glu	Gly	Thr	Asp	Arg	Lys
		35					40					45			
Asp	Val	Phe	Phe	Tyr	Gln	Ala	Asp	Asp	Glu	His	Tyr	Ile	Pro	Arg	Ala
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Val	Leu	Leu	Asp	Leu	Glu	Pro	Arg	Val	Ile	His	Ser	Ile	Leu	Asn	Ser
65				70					75					80	
Pro	Tyr	Ala	Lys	Leu	Tyr	Asn	Pro	Glu	Asn	Ile	Tyr	Leu	Ser	Glu	His
			85					90					95		
Gly	Gly	Gly	Ala	Gly	Asn	Asn	Trp	Ala	Ser	Gly	Phe	Ser	Gln	Gly	Glu
			100					105					110		
Lys	Ile	His	Glu	Asp	Ile	Phe	Asp	Ile	Ile	Asp	Arg	Glu	Ala	Asp	Gly
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Ser	Asp	Ser	Leu	Glu	Gly	Phe	Val	Leu	Cys	His	Ser	Ile	Ala	Gly	Gly
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Tyr	Pro	Lys	Lys	Leu	Val	Gln	Thr	Tyr	Ser	Val	Phe	Pro	Asn	Gln	Asp
			165					170					175		
Glu	Met	Ser	Asp	Val	Val	Val	Gln	Pro	Tyr	Asn	Ser	Leu	Leu	Thr	Leu
			180					185					190		
Lys	Arg	Leu	Thr	Gln	Asn	Ala	Asp	Cys	Val	Val	Val	Leu	Asp	Asn	Thr

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Ala Leu Asn Arg Ile Ala Thr Asp Arg Leu His Ile Gln Asn Pro Ser		
210	215	220
Phe Ser Gln Ile Asn Gln Leu Val Ser Thr Ile Met Ser Ala Ser Thr		
225	230	235
Thr Thr Leu Arg Tyr Pro Gly Tyr Met Asn Asn Asp Leu Ile Gly Leu		240
	245	250
Ile Ala Ser Leu Ile Pro Thr Pro Arg Leu His Phe Leu Met Thr Gly		255
	260	265
Tyr Thr Pro Leu Thr Thr Asp Gln Ser Val Ala Ser Val Arg Lys Thr		270
	275	280
Thr Val Leu Asp Val Met Arg Arg Leu Leu Gln Pro Lys Asn Val Met		285
	290	295
Val Ser Thr Gly Arg Asp Arg Gln Thr Asn His Cys Tyr Ile Ala Ile		300
305	310	315
Leu Asn Ile Ile Gln Gly Glu Val Asp Pro Thr Gln Val His Lys Ser		320
	325	330
Leu Gln Arg Ile Arg Glu Arg Lys Leu Ala Asn Phe Ile Pro Trp Gly		335
	340	345
Pro Ala Ser Ile Gln Val Ala Leu Ser Arg Lys Ser Pro Tyr Leu Pro		350
	355	360
Ser Ala His Arg Val Ser Gly Leu Met Met Ala Asn His Thr Ser Ile		365
	370	375
Ser Ser Leu Phe Glu Arg Thr Cys Arg Gln Tyr Asp Lys Leu Arg Lys		380
385	390	395
Arg Glu Ala Phe Leu Glu Gln Phe Arg Lys Glu Asp Met Phe Lys Asp		400
	405	410
Asn Phe Asp Glu Met Asp Thr Ser Arg Glu Ile Val Gln Gln Leu Ile		415
	420	425
Asp Glu Tyr His Ala Ala Thr Arg Pro Asp Tyr Ile Ser Trp Gly Thr		430
	435	440
Gln Glu Gln		445
450		

&lt;210&gt; 3143

&lt;211&gt; 356

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3143

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356

&lt;210&gt; 3144

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 <213> Homo sapiens

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 35 40 45  
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 Pro His His Ser Gln Thr Pro Pro Gln Arg Val Cys Leu Arg Ala Pro  
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 35 40 45  
 Arg Leu Pro Pro Phe Thr His Leu Pro Ser Val Pro Gly Pro Pro Ser

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Gln Met Thr Ser Gly Gly Glu Pro His Ile Ser Thr Gly Ser Arg Arg
      85              90              95
Pro Arg Lys Leu Pro Trp Pro Ala His Pro Arg Cys Ser Ala Cys Pro
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Gly Thr Ser
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1080

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&lt;210&gt; 3148

&lt;211&gt; 444

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3148

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			20				25					30			
Thr	Asp	Arg	Trp	Leu	Val	Ile	Asp	Arg	Lys	Val	Tyr	Asn	Ile	Thr	Lys
		35				40					45				
Trp	Ser	Ile	Gln	His	Pro	Gly	Gly	Gln	Arg	Val	Ile	Gly	His	Tyr	Ala
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Gly	Glu	Asp	Ala	Thr	Asp	Ala	Phe	Arg	Ala	Phe	His	Pro	Asp	Leu	Glu
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Phe	Val	Gly	Lys	Phe	Leu	Lys	Pro	Leu	Leu	Ile	Gly	Glu	Leu	Ala	Pro
			85					90						95	
Glu	Glu	Pro	Ser	Gln	Asp	His	Gly	Lys	Asn	Ser	Lys	Ile	Thr	Glu	Asp
		100					105					110			
Phe	Arg	Ala	Leu	Arg	Lys	Thr	Ala	Glu	Asp	Met	Asn	Leu	Phe	Lys	Thr
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Asn	His	Val	Phe	Phe	Leu	Leu	Leu	Leu	Ala	His	Ile	Ile	Ala	Leu	Glu
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Ser	Ile	Ala	Trp	Phe	Thr	Val	Phe	Tyr	Phe	Gly	Asn	Gly	Trp	Ile	Pro
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Thr	Leu	Ile	Thr	Ala	Phe	Val	Leu	Ala	Thr	Ser	Gln	Ala	Gln	Ala	Gly
		165					170						175		
Trp	Leu	Gln	His	Asp	Tyr	Gly	His	Leu	Ser	Val	Tyr	Arg	Lys	Pro	Lys
		180				185						190			
Trp	Asn	His	Leu	Val	His	Lys	Phe	Val	Ile	Gly	His	Leu	Lys	Gly	Ala
	195					200					205				
Ser	Ala	Asn	Trp	Trp	Asn	His	Arg	His	Phe	Gln	His	His	Ala	Lys	Pro
	210				215					220					
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Leu	Leu	Ile	Pro	Met	Tyr	Phe	Gln	Tyr	Gln	Ile	Ile	Met	Thr	Met	Ile
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Val	His	Lys	Asn	Trp	Val	Asp	Leu	Ala	Trp	Ala	Val	Ser	Tyr	Tyr	Ile
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Arg	Phe	Phe	Ile	Thr	Tyr	Ile	Pro	Phe	Tyr	Gly	Ile	Leu	Gly	Ala	Leu
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385					390					395				400	
Pro	Leu	Val	Lys	Ser	Leu	Cys	Ala	Lys	His	Gly	Ile	Glu	Tyr	Gln	Glu
			405					410				415			
Lys	Pro	Leu	Leu	Arg	Ala	Leu	Leu	Asp	Ile	Ile	Arg	Ser	Leu	Lys	Lys
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Ser	Gly	Lys	Leu	Trp	Leu	Asp	Ala	Tyr	Leu	His	Lys				
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&lt;210&gt; 3149

&lt;211&gt; 1006

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3149

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180
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720

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<210> 3150

<211> 201

<212> PRT

<213> Homo sapiens

<400> 3150

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			20					25					30		
Ala	Pro	Ala	Ala	Gly	Thr	Met	Gly	Ala	Ala	His	Ser	Ala	Ser	Glu	Glu
			35				40					45			
Val	Arg	Glu	Leu	Glu	Gly	Lys	Thr	Gly	Phe	Ser	Ser	Asp	Gln	Ile	Glu
	50					55					60				
Gln	Leu	His	Arg	Arg	Phe	Lys	Gln	Leu	Ser	Gly	Asp	Gln	Pro	Thr	Ile
65					70				75					80	
Arg	Lys	Glu	Asn	Phe	Asn	Asn	Val	Pro	Asp	Leu	Glu	Leu	Asn	Pro	Ile
			85					90					95		
Arg	Ser	Lys	Ile	Val	Arg	Ala	Phe	Phe	Asp	Asn	Arg	Asn	Leu	Arg	Lys
			100					105					110		
Gly	Pro	Ser	Gly	Leu	Ala	Asp	Glu	Ile	Asn	Phe	Glu	Asp	Phe	Leu	Thr
			115					120				125			
Ile	Met	Ser	Tyr	Phe	Arg	Pro	Ile	Asp	Thr	Thr	Met	Asp	Glu	Glu	Gln
	130					135					140				
Val	Glu	Leu	Ser	Arg	Lys	Glu	Lys	Leu	Arg	Phe	Leu	Phe	His	Met	Tyr
145					150					155				160	
Asp	Ser	Asp	Ser	Asp	Gly	Arg	Ile	Thr	Leu	Glu	Glu	Tyr	Arg	Asn	Val
			165					170					175		
Lys	Trp	Ser	Arg	Ser	Cys	Cys	Arg	Glu	Thr	Leu	Thr	Ser	Arg	Arg	Ser
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<210> 3151

<211> 2079

<212> DNA

<213> Homo sapiens

<400> 3151

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420  
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<210> 3152  
 <211> 214  
 <212> PRT  
 <213> Homo sapiens

<400> 3152  
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 Ile Ala Ser Trp Lys Gly Leu Val Arg Phe Leu Asn Ser Leu Gly Thr  
 35 40 45  
 Ile Phe Ser Phe Ile Ser Lys Asp Val Val Ser Lys Leu Arg Ile Met  
 50 55 60  
 Glu Arg Leu Arg Gly Gly Pro Gln Ser Glu His Tyr Arg Ser Leu Gln  
 65 70 75 80  
 Ala Met Val Ala His Glu Leu Ser Asn Arg Leu Val Asp Leu Glu Gly  
 85 90 95  
 Arg Ser His His Pro Glu Ser Gly Cys Arg Thr Val Leu Arg Leu His  
 100 105 110  
 Arg Ala Leu His Trp Leu Gln Leu Phe Leu Glu Gly Leu Arg Thr Ser  
 115 120 125  
 Pro Glu Asp Ala Arg Thr Ser Ala Leu Cys Ala Asp Ser Tyr Asn Ala  
 130 135 140  
 Ser Leu Ala Ala Tyr His Pro Trp Val Val Arg Arg Ala Val Thr Val  
 145 150 155 160  
 Ala Phe Cys Thr Leu Pro Thr Arg Glu Val Phe Leu Glu Ala Met Asn  
 165 170 175  
 Val Gly Pro Pro Glu Gln Ala Val Gln Met Leu Gly Glu Ala Leu Pro  
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<210> 3153  
 <211> 1498  
 <212> DNA  
 <213> Homo sapiens

<400> 3153

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&lt;210&gt; 3154

&lt;211&gt; 65

&lt;212&gt; PRT

<213> Homo sapiens

<400> 3154

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Ser Gly His Arg Trp Gly Ile Thr Leu Pro Thr Arg Asp Ser Arg His
          35           40           45
Gly Leu Leu Gly Leu Gln Ala Pro Trp Gly Ser Arg Gly Lys Pro Gln
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Gly
65

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<210> 3155

<211> 551

<212> DNA

<213> Homo sapiens

<400> 3155

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420
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<210> 3156

<211> 178

<212> PRT

<213> Homo sapiens

<400> 3156

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Val Ser Ser Ala Lys Lys Pro Lys Leu Ala Leu Glu Asp Ser Glu Asn
          20           25           30
Thr Ala Ser Thr Asn Cys Asp Ser Ser Ser Glu Gly Leu Glu Lys Asp
          35           40           45
Thr Ala Thr Gln Arg Ser Asp Gln Thr Cys Leu Glu Pro Ser Cys Ser

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Cys Ser Ser Glu Asn Gln Glu Cys Gln Thr Ala Ala Ser Pro Gly Glu
65              70              75              80
Ile Leu Glu Ile Leu Lys Lys Gly Lys Ala Phe Val Leu Asp Ile Asp
      85              90              95
Leu Asp Phe Phe Ser Val Lys Asn Pro Phe Lys Lys Met Phe Thr Gln
      100             105             110
Glu Glu Tyr Lys Ile Leu Gln Glu Leu Tyr Gln Phe Lys Lys Pro Gly
      115             120             125
Thr Asn Leu Thr Glu Glu Asp Leu Val Asp Ile Val Asp Thr Arg Ile
      130             135             140
His Gln Leu Glu Asp Leu Glu Ala Thr Phe Ala Asp Leu Cys Asp Gly
145             150             155             160
Asp Asp Glu Glu Thr Val Gln Gly Trp Ala Ser Asn Pro Gly Met Glu
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Ser Leu

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<210> 3157  
 <211> 903  
 <212> DNA  
 <213> Homo sapiens

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420
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900

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cac  
903

<210> 3158  
<211> 92  
<212> PRT  
<213> Homo sapiens

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Thr Glu Pro Pro Thr Pro Glu Pro Gly Pro Lys Thr Pro Pro Arg Thr  
35 40 45  
Met Gln Glu Ser Pro Leu Gly Leu Gln Val Lys Glu Glu Ser Glu Val  
50 55 60  
Thr Glu Asp Ser Asp Phe Leu Glu Ser Gly Pro Leu Ala Ala Thr Gln  
65 70 75 80  
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<210> 3159  
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<212> DNA  
<213> Homo sapiens

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2408

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<213> Homo sapiens

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35 40 45  
Ala Lys Gln Arg Gly Lys Arg Ala Ile Thr Asp Asn Asp Met Gln Ser  
50 55 60  
Ile Leu Asp Leu His Asn Lys Leu Arg Ser Gln Val Tyr Pro Thr Ala  
65 70 75 80  
Ser Asn Met Glu Tyr Met Thr Trp Asp Val Glu Leu Glu Arg Ser Ala  
85 90 95  
Glu Ser Trp Ala Glu Ser Cys Leu Trp Glu His Gly Pro Ala Ser Leu  
100 105 110  
Leu Pro Ser Ile Gly Gln Asn Leu Gly Ala His Trp Gly Arg Tyr Arg  
115 120 125  
Pro Pro Thr Phe His Val Gln Ser Trp Tyr Asp Glu Val Lys Asp Phe  
130 135 140  
Ser Tyr Pro Tyr Glu His Glu Cys Asn Pro Tyr Cys Pro Phe Arg Cys  
145 150 155 160  
Ser Gly Pro Val Cys Thr His Tyr Thr Gln Val Val Trp Ala Thr Ser  
165 170 175  
Asn Arg Ile Gly Cys Ala Ile Asn Leu Cys His Asn Met Asn Ile Trp  
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Gly Gln Ile Trp Pro Lys Ala Val Tyr Leu Val Cys Asn Tyr Ser Pro  
195 200 205  
Lys Gly Asn Trp Trp Gly His Ala Pro Tyr Lys His Gly Arg Pro Cys  
210 215 220  
Ser Ala Cys Pro Pro Ser Phe Gly Gly Gly Cys Arg Glu Asn Leu Cys  
225 230 235 240  
Tyr Lys Glu Gly Ser Asp Arg Tyr Tyr Pro Pro Arg Glu Glu Glu Thr  
245 250 255  
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260 265 270  
Thr Arg Ser Asp Asp Ser Ser Arg Asn Glu Val Ile Ser Ala Gln Gln  
275 280 285  
Met Ser Gln Ile Val Ser Cys Glu Val Arg Leu Arg Asp Gln Cys Lys  
290 295 300  
Gly Thr Thr Cys Asn Arg Tyr Glu Cys Pro Ala Gly Cys Leu Asp Ser  
305 310 315 320  
Lys Ala Lys Val Ile Gly Ser Val His Tyr Glu Met Gln Ser Ser Ile  
325 330 335  
Cys Arg Ala Ala Ile His Tyr Gly Ile Ile Asp Asn Asp Gly Gly Trp  
340 345 350  
Val Asp Ile Thr Arg Gln Gly Arg Lys His Tyr Phe Ile Lys Ser Asn

355	360	365
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370	375	380
Thr Val Ser Lys Val Thr Val Gln Ala Val Thr Cys Glu Thr Thr Val		
385	390	395
Asp Ser Ser Val His Phe Ile Ser Leu Leu His Ile Ala Gln Glu Tyr		400
	405	410
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420	425	430

&lt;210&gt; 3161

&lt;211&gt; 1197

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3161

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<211> 386  
<212> PRT  
<213> Homo sapiens

<400> 3162  
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Ile Thr Ala Ser Ser Asn Lys Ser Leu Asn Leu Leu Lys Ile Lys His  
35 40 45  
Gly Asp Leu Leu Phe Leu Phe Pro Ser Ser Leu Ala Gly Pro Ser Ser  
50 55 60  
Glu Met Glu Thr Ser Val Pro Pro Gly Phe Lys Val Phe Gly Ala Pro  
65 70 75 80  
Asn Val Val Glu Asp Glu Ile Asp Gln Tyr Leu Ser Lys Gln Asp Gly  
85 90 95  
Lys Ile Tyr Arg Ser Arg Asp Pro Gln Leu Cys Arg His Gly Pro Leu  
100 105 110  
Gly Lys Cys Val His Cys Val Pro Leu Glu Pro Phe Asp Glu Asp Tyr  
115 120 125  
Leu Asn His Leu Glu Pro Pro Val Lys His Met Ser Phe His Ala Tyr  
130 135 140  
Ile Arg Lys Leu Thr Gly Gly Ala Asp Lys Gly Lys Phe Val Ala Leu  
145 150 155 160  
Glu Asn Ile Ser Cys Lys Ile Lys Ser Gly Cys Glu Gly His Leu Pro  
165 170 175  
Trp Pro Asn Gly Ile Cys Thr Lys Cys Gln Pro Ser Ala Ile Thr Leu  
180 185 190  
Asn Arg Gln Lys Tyr Arg His Val Asp Asn Ile Met Phe Glu Asn His  
195 200 205  
Thr Val Ala Asp Arg Phe Leu Asp Phe Trp Arg Lys Thr Gly Asn Gln  
210 215 220  
His Phe Gly Tyr Leu Tyr Gly Arg Tyr Thr Glu His Lys Asp Ile Pro  
225 230 235 240  
Leu Gly Ile Arg Ala Glu Val Ala Ala Ile Tyr Glu Pro Pro Gln Ile  
245 250 255  
Gly Thr Gln Asn Ser Leu Glu Leu Leu Glu Asp Pro Lys Ala Glu Val  
260 265 270  
Val Asp Glu Ile Ala Ala Lys Leu Gly Leu Arg Lys Val Gly Trp Ile  
275 280 285  
Phe Thr Asp Leu Val Ser Glu Asp Thr Arg Lys Gly Thr Val Arg Tyr  
290 295 300  
Ser Arg Asn Lys Asp Thr Tyr Phe Leu Ser Ser Glu Glu Cys Ile Thr  
305 310 315 320  
Ala Gly Asp Phe Gln Asn Lys His Pro Asn Met Cys Arg Leu Ser Pro  
325 330 335  
Asp Gly His Phe Gly Ser Lys Phe Val Thr Ala Val Ala Thr Gly Gly  
340 345 350  
Pro Asp Asn Gln Val His Phe Glu Gly Tyr Gln Val Ser Asn Gln Cys

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<210> 3163

<211> 1075

<212> DNA

<213> Homo sapiens

<400> 3163

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<210> 3164

<211> 94

<212> PRT

<213> Homo sapiens

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 Ser Ser Val Pro Pro Arg Gln Ala Cys Ala Ser Pro Ala Ser Cys Ser  
 35 40 45  
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&lt;210&gt; 3166

&lt;211&gt; 717

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens



&lt;400&gt; 3166

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Ser Leu Pro Leu Ser Ala His Gly Ile Val Val Ala Trp Leu Ser Arg
35      40      45
Ala Glu Trp Asp Gln Val Thr Val Tyr Leu Phe Cys Asp Asp His Lys
50      55      60
Leu Gln Arg Tyr Ala Leu Asn Arg Ile Thr Val Trp Arg Ser Arg Ser
65      70      75      80
Gly Asn Glu Leu Pro Leu Ala Val Ala Ser Thr Ala Asp Leu Ile Arg
85      90      95
Cys Lys Leu Leu Asp Val Thr Gly Gly Leu Gly Thr Asp Glu Leu Arg
100     105     110
Leu Leu Tyr Gly Met Ala Leu Val Arg Phe Val Asn Leu Ile Ser Glu
115     120     125
Arg Lys Thr Lys Phe Ala Lys Val Pro Leu Lys Cys Leu Ala Gln Glu
130     135     140
Val Asn Ile Pro Asp Trp Ile Val Asp Leu Arg His Glu Leu Thr His
145     150     155     160
Lys Lys Met Pro His Ile Asn Asp Cys Arg Arg Gly Cys Tyr Phe Val
165     170     175
Leu Asp Trp Leu Gln Lys Thr Tyr Trp Cys Arg Gln Leu Glu Asn Ser
180     185     190
Leu Arg Glu Thr Trp Glu Leu Glu Glu Phe Arg Glu Gly Ile Glu Glu
195     200     205
Glu Asp Gln Glu Glu Asp Lys Asn Ile Val Val Asp Asp Ile Thr Glu
210     215     220
Gln Lys Pro Glu Pro Gln Asp Asp Gly Lys Ser Thr Glu Ser Asp Val
225     230     235     240
Lys Ala Asp Gly Asp Ser Lys Gly Ser Glu Glu Val Asp Ser His Cys
245     250     255
Lys Lys Ala Leu Ser His Lys Glu Leu Tyr Glu Arg Ala Arg Glu Leu
260     265     270
Leu Val Ser Tyr Glu Glu Glu Gln Phe Thr Val Leu Glu Lys Phe Arg
275     280     285
Tyr Leu Pro Lys Ala Ile Lys Ala Trp Asn Asn Pro Ser Pro Arg Val
290     295     300
Glu Cys Val Leu Ala Glu Leu Lys Gly Val Thr Cys Glu Asn Arg Glu
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Ala Val Leu Asp Ala Phe Leu Asp Asp Gly Phe Leu Val Pro Thr Phe
325     330     335
Glu Gln Leu Ala Ala Leu Gln Ile Glu Tyr Glu Glu Asn Val Asp Leu
340     345     350
Asn Asp Val Leu Val Pro Lys Pro Phe Ser Gln Phe Trp Gln Pro Leu
355     360     365
Leu Arg Gly Leu His Ser Gln Asn Phe Thr Gln Ala Leu Leu Glu Arg
370     375     380
Met Leu Ser Glu Leu Pro Ala Leu Gly Ile Ser Gly Ile Arg Pro Thr
385     390     395     400
Tyr Ile Leu Arg Trp Thr Val Glu Leu Ile Val Ala Asn Thr Lys Thr
405     410     415
Gly Arg Asn Ala Arg Arg Phe Ser Ala Gly Gln Trp Glu Ala Arg Arg

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          450          455          460
Arg Ile Ile Phe Lys Ala Met Gly Gln Gly Leu Pro Asp Glu Glu Gln
          465          470          475          480
Glu Lys Leu Leu Arg Ile Cys Ser Ile Tyr Thr Gln Ser Gly Glu Asn
          485          490          495
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          500          505          510
Tyr Thr Leu Asp Ser Leu Tyr Trp Ser Val Lys Pro Ala Ser Ser Ser
          515          520          525
Phe Gly Ser Glu Ala Lys Ala Gln Gln Gln Glu Glu Gln Gly Ser Val
          530          535          540
Asn Asp Val Lys Glu Glu Glu Lys Glu Glu Lys Glu Val Leu Pro Asp
          545          550          555          560
Gln Val Glu Glu Glu Glu Glu Asn Asp Asp Gln Glu Glu Glu Glu Glu
          565          570          575
Asp Glu Asp Asp Glu Asp Asp Glu Glu Asp Arg Met Glu Val Gly
          580          585          590
Pro Phe Ser Thr Gly Gln Glu Ser Pro Thr Ala Glu Asn Ala Arg Leu
          595          600          605
Leu Ala Gln Lys Arg Gly Ala Leu Gln Gly Ser Ala Trp Gln Val Ser
          610          615          620
Ser Glu Asp Val Arg Trp Asp Thr Phe Pro Leu Gly Arg Met Pro Gly
          625          630          635          640
Gln Thr Glu Asp Pro Ala Glu Leu Met Leu Glu Asn Tyr Asp Thr Met
          645          650          655
Tyr Leu Leu Asp Gln Pro Val Leu Glu Gln Arg Leu Glu Pro Ser Thr
          660          665          670
Cys Lys Thr Asp Thr Leu Gly Leu Ser Cys Gly Val Gly Ser Gly Asn
          675          680          685
Cys Ser Asn Ser Ser Ser Ser Asn Phe Glu Gly Leu Leu Trp Ser Gln
          690          695          700
Gly Gln Leu His Gly Leu Lys Thr Gly Leu Gln Leu Phe
          705          710          715

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&lt;210&gt; 3167

&lt;211&gt; 2730

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3167

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&lt;210&gt; 3168

&lt;211&gt; 312

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3168

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&lt;211&gt; 5945

&lt;212&gt; DNA

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&lt;400&gt; 3169

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 Ser Thr Tyr Asn Gly Asp Ile Arg Glu Thr Arg Thr Asp Gln Glu Asn  
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Lys Asp Ser Glu Lys Lys Arg Trp Leu Gly Leu Ala Arg Tyr Asp Phe
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Ser Gly Leu Lys Thr Phe Leu Ser His His Cys Tyr Glu Gly Thr Val
      100          105          110
Ser Phe Leu Pro Ala Gln His Thr Val Gly Ser Pro Arg Asp Arg Lys
      115          120          125
Pro Cys Arg Ala Gly Cys Phe Val Cys Arg Gln Ser Lys Gln Gln Leu
      130          135          140
Glu Glu Glu Gln Lys Lys Ala Leu Tyr Gly Leu Glu Ala Ala Glu Asp
145          150          155          160
Val Glu Glu Trp Gln Val Val Cys Gly Lys Phe Leu Ala Ile Asn Ala
      165          170          175
Thr Asn Met Ser Cys Ala Cys Arg Arg Ser Pro Arg Gly Leu Ser Pro
      180          185          190
Ala Ala His Leu Gly Asp Gly Ser Ser Asp Leu Ile Leu Ile Arg Lys
      195          200          205
Cys Ser Arg Phe Asn Phe Leu Arg Phe Leu Ile Trp His Glu Val Cys
      210          215          220
Lys Lys Pro Leu
225

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&lt;210&gt; 3173

&lt;211&gt; 573

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3173

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420

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 <211> 152  
 <212> PRT  
 <213> Homo sapiens

<400> 3174  
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 Val Ala Gln Tyr Phe Arg Glu Lys Tyr Thr Leu Gln Leu Lys Tyr Pro  
 50 55 60  
 His Leu Pro Cys Leu Gln Val Gly Gln Glu Gln Lys His Thr Tyr Leu  
 65 70 75 80  
 Pro Leu Glu Val Cys Asn Ile Val Ala Gly Gln Arg Cys Ile Lys Lys  
 85 90 95  
 Leu Thr Asp Asn Gln Thr Ser Thr Met Ile Lys Ala Thr Ala Arg Ser  
 100 105 110  
 Ala Pro Asp Arg Gln Glu Glu Ile Ser Arg Leu Val Arg Ser Ala Asn  
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<210> 3175  
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 <213> Homo sapiens

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&lt;210&gt; 3176

&lt;211&gt; 92

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3176

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			20					25					30		
Pro	Asp	Ala	Trp	Gly	Leu	Pro	Thr	Pro	Gln	Gln	Ala	Arg	Gly	Lys	Ala
		35					40					45			
Arg	Gly	Asn	Glu	Tyr	Gln	Pro	Ser	Asn	Ile	Lys	Arg	Lys	Asn	Lys	His
	50					55					60				
Gly	Trp	Val	Arg	Arg	Leu	Ser	Thr	Pro	Ala	Gly	Val	Gln	Val	Ile	Leu
65					70					75				80	
Arg	Arg	Met	Leu	Lys	Gly	Arg	Lys	Ser	Leu	Ser	His				
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&lt;210&gt; 3177

&lt;211&gt; 1857

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3177

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1857

&lt;210&gt; 3178

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 <212> PRT  
 <213> Homo sapiens

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 35 40 45  
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 50 55 60  
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 65 70 75 80  
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 85 90 95  
 Glu Gly Phe Gln Gln Leu Val Ala Ser Tyr Cys Pro Glu Val Val Glu  
 100 105 110  
 Asp Gly Val Ala Asp Gln Thr Asp Glu Gly Gly Ser Val Pro Val Ile  
 115 120 125  
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 130 135 140  
 Gly Ala Asp Arg Ser Tyr Trp Lys Glu Phe Leu Val Met Cys Thr Leu  
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 165 170 175  
 Arg Asn Ser Met Lys Val Phe Leu Lys Gln Gly Glu Cys Ala Ser Val  
 180 185 190  
 His Pro Lys Thr Cys Pro Val Val Leu Pro Pro Glu Thr Arg Pro Leu  
 195 200 205  
 Asn Gly Leu Gly Pro Pro Ser Thr Pro Leu Asp His Arg Gly Tyr Gln  
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 Ser Leu Ser Asp Ser Pro Pro Gly Ala Arg Val Phe Thr Glu Ser Glu  
 225 230 235 240  
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 <211> 3447  
 <212> DNA  
 <213> Homo sapiens

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<211> 127  
<212> PRT  
<213> Homo sapiens

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Ala Phe Thr Pro Thr Gly Lys Val Lys Leu Thr Phe Val Phe Leu Phe  
35 40 45  
Asn Asn Phe Met Ile Asn Lys Glu Leu Gln Leu Glu Thr Lys Ala Asn  
50 55 60  
Ser Arg Asn Ser Leu Thr Pro Ser Cys Pro Met Val Phe Met Ile Ala  
65 70 75 80  
Cys Tyr Gln Asn Glu Ala Leu Cys Ser Thr Leu Tyr Ser Lys Ala Phe  
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Tyr Ala Pro Thr Arg Pro Ser Gly Ile Pro Glu Ser Ala Leu His Thr  
100 105 110  
Gly Arg Lys Thr Ala Ser Ser Tyr Arg Leu Cys Glu Asn Thr Gln  
115 120 125

<210> 3181  
<211> 287  
<212> DNA  
<213> Homo sapiens

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240  
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287

<210> 3182  
<211> 95  
<212> PRT  
<213> Homo sapiens

<400> 3182  
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20 25 30  
Gly His Met Lys Gln Gly Gly Leu Leu Lys Asp Gly Trp Ala Ser Pro

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Ala	Val	Ser	Ser	Val	Gln	Val	Leu	Ser	Phe	Cys	Leu	Gln	Lys	Val	Cys
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Ser	Ile	Trp	Cys	Ser	Cys	Leu	Met	Pro	His	Thr	Gly	Asp	Ala	Pro	
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<210> 3183  
 <211> 1457  
 <212> DNA  
 <213> Homo sapiens

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 1457

<210> 3184

<211> 140

<212> PRT

<213> Homo sapiens

<400> 3184

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			20					25					30		
Gln	Thr	Gln	Leu	Leu	Val	Pro	Lys	Lys	Val	Leu	Pro	Glu	Ser	Cys	Arg
			35				40					45			
Leu	Ser	Trp	Asn	Leu	Leu	Gly	Asp	Glu	Ala	Ala	Ala	Glu	Leu	Ala	Gln
			50			55					60				
Val	Leu	Pro	Gln	Met	Gly	Arg	Leu	Lys	Arg	Val	Asp	Leu	Glu	Lys	Asn
65				70					75					80	
Gln	Ile	Thr	Ala	Leu	Gly	Ala	Trp	Leu	Leu	Ala	Glu	Gly	Leu	Ala	Gln
			85					90					95		
Gly	Ser	Ser	Ile	Gln	Val	Ile	Arg	Leu	Trp	Asn	Asn	Pro	Ile	Pro	Cys
			100					105					110		
Asp	Met	Ala	Gln	His	Leu	Lys	Ser	Gln	Glu	Pro	Arg	Leu	Asp	Phe	Ala
			115				120					125			
Phe	Phe	Asp	Asn	Gln	Pro	Gln	Ala	Pro	Trp	Gly	Thr				
			130			135					140				

<210> 3185

<211> 1433

<212> DNA

<213> Homo sapiens

<400> 3185

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 120  
 cctggtaacc tgaggaggtg tagagcacc agaaggaagg gtaaaagcag ggggcaaagc  
 180  
 ggtggccctc cttttctggg ggtcacttct gggctggggc cagctgaaac ctgtgtccaa  
 240  
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 780  
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 960  
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 1320  
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 1433

&lt;210&gt; 3186

&lt;211&gt; 112

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3186

Met	Pro	Leu	Leu	Trp	Phe	Val	Gln	Val	Thr	Gly	Val	Pro	Arg	Pro	Leu
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His	Asp	Gln	His	Pro	Val	Val	Gly	Gln	Leu	Leu	Gln	Val	Leu	Lys	Ala
		20						25					30		
Gly	Leu	Thr	His	Gly	Val	Leu	Val	Ser	Ile	Tyr	Asn	Gln	Ser	Trp	Ser
		35					40					45			
Leu	Arg	Gly	Arg	Ile	Gly	Gly	Trp	Gly	Arg	Val	Asn	Arg	Thr	Cys	His
	50					55				60					
Ser	Ile	Pro	Ser	Pro	Pro	His	Phe	Ser	Leu	Phe	Leu	Gly	Pro	Pro	His
65				70					75				80		
Met	Arg	Glu	Arg	Asp	Lys	Leu	Ala	Gln	Trp	Val	Gly	Ala	Gln	Ile	Gly

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 Val Cys Pro Arg Thr Gln Phe Ser Thr Gly Leu Gly Thr Val Val Cys  
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 <210> 3187  
 <211> 860  
 <212> DNA  
 <213> Homo sapiens  
 <400> 3187  
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 120  
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 240  
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 360  
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 720  
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 860

<210> 3188  
 <211> 120  
 <212> PRT  
 <213> Homo sapiens

<400> 3188  
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 Asp Tyr Arg Tyr Val Pro Lys Thr Ser Leu Ser Ser Pro Pro Trp Pro  
 20 25 30  
 Glu Val Val Leu Pro Asp Pro Val Glu Glu Thr Arg His His Ala Glu  
 35 40 45  
 Val Val Lys Lys Val Asn Glu Met Ile Val Thr Gly Gln Tyr Gly Arg

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      50              55              60
Leu Phe Ala Val Val His Phe Ala Ser Arg Gln Trp Lys Val Thr Ser
65              70              75              80
Glu Asp Leu Ile Leu Ile Gly Asn Glu Leu Asp Leu Ala Cys Gly Glu
      85              90              95
Arg Ile Arg Leu Glu Lys Val Leu Leu Val Gly Ala Asp Asn Phe Thr
      100              105              110
Leu Leu Gly Lys Pro Leu Leu Gly
      115              120

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<210> 3189  
 <211> 440  
 <212> DNA  
 <213> Homo sapiens

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120
gactccctt ctgggccagt gctgccctgc tttctctgtc tctttcaggg tgtgctgtcc
180
gacctacca aagtgacctg gatgcatgga atcgacctg tgggtgctggt cctgatgggtg
240
ggcatgggtg tgttcaccct ggggttcgcc ggctgcgtgg gggctctgcg ggagaatata
300
tgcttgctca actttgtgag tggccacaga gacaagagtg ggatatgatg caatggggta
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440

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<210> 3190  
 <211> 111  
 <212> PRT  
 <213> Homo sapiens

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<400> 3190
Gly His Gly Trp Gly Arg Thr Leu Ala Trp Leu Ser Thr Arg Gly Leu
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Ser Leu Gly Lys Gln Val Pro Val Phe Ser Thr Thr Cys Ile Pro Gln
      20              25              30
Gly Ser Ile Leu Asp Ser Pro Ser Gly Pro Val Leu Pro Cys Phe Leu
      35              40              45
Cys Leu Phe Gln Gly Val Leu Ser Asp Leu Thr Lys Val Thr Arg Met
      50              55              60
His Gly Ile Asp Pro Val Val Leu Val Leu Met Val Gly Met Val Met
65              70              75              80
Phe Thr Leu Gly Phe Ala Gly Cys Val Gly Ala Leu Arg Glu Asn Ile
      85              90              95
Cys Leu Leu Asn Phe Val Ser Gly His Arg Asp Lys Ser Gly Ile
      100              105              110

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 <211> 266  
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 <213> Homo sapiens

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 120  
 aacagcagga caatccacac ttccgtagcc tcctgggggtc ggccgccgag ccagcccggg  
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 266

<210> 3192  
 <211> 84  
 <212> PRT  
 <213> Homo sapiens

<400> 3192  
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 Cys Asn Gly Cys Trp Gly Gly Gly Pro Arg Ala Gly Ser Ala Ala Asp  
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 Pro Arg Arg Leu Arg Lys Cys Gly Leu Ser Cys Cys Ser Leu Arg Ser  
 35 40 45  
 Arg Glu Ser Lys Asp Asp Pro Trp Gln Phe Ser Asp Cys Arg Lys Arg  
 50 55 60  
 Ser Arg Ser Met Ala Gln Val Ala Asp Thr Glu Gln Gly Thr Ile Ser  
 65 70 75 80  
 Pro Ser Ala Ser

<210> 3193  
 <211> 567  
 <212> DNA  
 <213> Homo sapiens

<400> 3193  
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 tggagtgagt tgttttgccc ctctgagcct cagtttctcc atctgtgaaa tggggacaac  
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 240  
 gagtcagcgg ttcatgcttt gcatgcaaag tgcccagccc ctggctcaaa gtctgtgttc  
 300  
 atccagacct ggggtaacta ctgtcttcct tatgttgttc ctgtggggac gcctggggct  
 360



getggcctcg tgattcctct ctttccctgc aggccacggc tcacctactt ccccttctcc  
 420  
 ctggggccacc gctcctgcat cgggcagcag tttgctcaga tggaggtgaa ggtgggtcatg  
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 567

<210> 3194  
 <211> 116  
 <212> PRT  
 <213> Homo sapiens

<400> 3194  
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 Asn Tyr Cys Leu Pro Tyr Val Val Pro Val Gly Thr Pro Gly Ala Ala  
 35 40 45  
 Gly Leu Val Ile Pro Leu Phe Pro Cys Arg Pro Arg Phe Thr Tyr Phe  
 50 55 60  
 Pro Phe Ser Leu Gly His Arg Ser Cys Ile Gly Gln Gln Phe Ala Gln  
 65 70 75 80  
 Met Glu Val Lys Val Val Met Ala Lys Leu Leu Gln Arg Leu Glu Phe  
 85 90 95  
 Arg Leu Val Pro Gly Gln Arg Phe Gly Leu Gln Glu Gln Ala Thr Leu  
 100 105 110  
 Lys Pro Leu Asp  
 115

<210> 3195  
 <211> 987  
 <212> DNA  
 <213> Homo sapiens

<400> 3195  
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 120  
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 180  
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 240  
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 300  
 catcctccgg ctccatcgtg tccttcaaaa gtgctgacag catcaaaagt cgaccaggaa  
 360  
 tcccacgact tgcgggtgac ggtggcgagc gaacgtcccc cgagcggaga gagccagga  
 420  
 cggggaggaa agacgacgat gttgcgagca taatgaagaa atacctccag aagtaggaac  
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cagttcagcc tccttgaagc tgcccttgaa gacttcccga ctctacaata acttgagac  
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 720  
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 780  
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 987

<210> 3196

<211> 153

<212> PRT

<213> Homo sapiens

<400> 3196

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Leu	Asp	Tyr	Glu	Arg	Lys	Thr	Lys	Val	Asp	Phe	Asp	Asp	Phe	Leu	Pro
			20					25					30		
Ala	Ile	Arg	Lys	Pro	Gln	Thr	Pro	Thr	Ser	Leu	Ala	Gly	Ser	Ala	Lys
			35					40					45		
Gly	Gly	Gln	Asp	Gly	Ser	Gln	Arg	Ser	Ser	Ile	His	Phe	Glu	Thr	Glu
	50					55					60				
Glu	Ala	Asn	Arg	Ser	Phe	Leu	Ser	Gly	Ile	Lys	Thr	Ile	Leu	Lys	Lys
65					70					75				80	
Ser	Pro	Glu	Pro	Lys	Glu	Asp	Pro	Ala	His	Leu	Ser	Asp	Ser	Ser	Ser
				85					90					95	
Ser	Ser	Gly	Ser	Ile	Val	Ser	Phe	Lys	Ser	Ala	Asp	Ser	Ile	Lys	Ser
			100					105					110		
Arg	Pro	Gly	Ile	Pro	Arg	Leu	Ala	Gly	Asp	Gly	Gly	Glu	Arg	Thr	Ser
		115				120						125			
Pro	Glu	Arg	Arg	Glu	Pro	Gly	Thr	Gly	Arg	Lys	Asp	Asp	Asp	Val	Ala
	130					135						140			
Ser	Ile	Met	Lys	Lys	Tyr	Leu	Gln	Lys							
145						150									

<210> 3197

<211> 5575

<212> DNA

<213> Homo sapiens

<400> 3197

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&lt;210&gt; 3198

&lt;211&gt; 833

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3198

Met	Ala	Thr	Leu	Asp	Arg	Lys	Val	Pro	Ser	Pro	Glu	Ala	Phe	Leu	Gly
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			20				25						30		
Asn	Val	Asp	Leu	Glu	Glu	Ala	Gly	Lys	Glu	Gly	Gly	Lys	Ser	Arg	Glu
			35				40						45		
Val	Met	Arg	Leu	Asn	Lys	Glu	Asp	Met	His	Leu	Phe	Gly	His	Tyr	Pro
			50				55					60			
Ala	His	Asp	Asp	Phe	Tyr	Leu	Val	Val	Cys	Ser	Ala	Cys	Asn	Gln	Val
					70					75				80	
Val	Lys	Pro	Gln	Val	Phe	Gln	Ser	His	Cys	Glu	Arg	Arg	His	Gly	Ser
				85					90					95	
Met	Cys	Arg	Pro	Ser	Pro	Ser	Pro	Val	Ser	Pro	Ala	Ser	Asn	Pro	Arg
			100					105					110		
Thr	Ser	Leu	Val	Gln	Val	Lys	Thr	Lys	Ala	Cys	Leu	Ser	Gly	His	His
			115				120						125		
Ser	Ala	Ser	Ser	Thr	Ser	Lys	Pro	Phe	Lys	Thr	Pro	Lys	Asp	Asn	Leu
			130				135					140			
Leu	Thr	Ser	Ser	Ser	Lys	Gln	His	Thr	Val	Phe	Pro	Ala	Lys	Gly	Ser
					150					155				160	
Arg	Asp	Lys	Pro	Cys	Val	Pro	Val	Pro	Val	Val	Ser	Leu	Glu	Lys	Ile
				165					170					175	
Pro	Asn	Leu	Val	Lys	Ala	Asp	Gly	Ala	Asn	Val	Lys	Met	Asn	Ser	Thr
			180					185					190		
Thr	Thr	Thr	Ala	Val	Ser	Ala	Ser	Pro	Thr	Ser	Ser	Ser	Ala	Val	Ser

		195					200					205				
Thr	Pro	Pro	Leu	Ile	Lys	Pro	Val	Leu	Met	Ser	Lys	Ser	Val	Pro	Pro	
	210					215					220					
Ser	Pro	Glu	Lys	Ile	Leu	Asn	Gly	Lys	Gly	Ile	Leu	Pro	Thr	Thr	Ile	
225					230					235					240	
Asp	Lys	Lys	His	Gln	Asn	Gly	Thr	Lys	Asn	Ser	Asn	Lys	Pro	Tyr	Arg	
				245					250					255		
Arg	Leu	Ser	Glu	Arg	Glu	Phe	Asp	Pro	Asn	Lys	His	Cys	Gly	Val	Leu	
			260				265						270			
Asp	Pro	Glu	Thr	Lys	Lys	Pro	Cys	Thr	Arg	Ser	Leu	Thr	Cys	Lys	Thr	
		275				280					285					
His	Ser	Leu	Ser	His	Arg	Arg	Ala	Val	Pro	Gly	Arg	Lys	Lys	Gln	Phe	
	290				295						300					
Asp	Leu	Leu	Leu	Ala	Glu	His	Lys	Ala	Lys	Ser	Arg	Glu	Lys	Glu	Val	
305					310					315					320	
Lys	Asp	Lys	Glu	His	Leu	Leu	Thr	Ser	Thr	Arg	Glu	Ile	Leu	Pro	Ser	
				325					330					335		
Gln	Ser	Gly	Pro	Ala	Gln	Asp	Ser	Leu	Leu	Gly	Ser	Ser	Gly	Ser	Ser	
			340					345					350			
Gly	Pro	Glu	Pro	Lys	Val	Ala	Ser	Pro	Ala	Lys	Ser	Arg	Pro	Pro	Asn	
		355				360						365				
Ser	Val	Leu	Pro	Arg	Pro	Ser	Ser	Ala	Asn	Ser	Ile	Ser	Ser	Ser	Thr	
	370				375					380						
Ser	Ser	Asn	His	Ser	Gly	His	Thr	Pro	Glu	Pro	Pro	Leu	Pro	Pro	Val	
385					390					395					400	
Gly	Gly	Asp	Leu	Ala	Ser	Arg	Leu	Ser	Ser	Asp	Glu	Gly	Glu	Met	Asp	
				405					410				415			
Gly	Ala	Asp	Glu	Ser	Glu	Lys	Leu	Asp	Cys	Gln	Phe	Ser	Thr	His	His	
			420					425					430			
Pro	Arg	Pro	Leu	Ala	Phe	Cys	Ser	Phe	Gly	Ser	Arg	Leu	Met	Gly	Arg	
		435				440						445				
Gly	Tyr	Tyr	Val	Phe	Asp	Arg	Arg	Trp	Asp	Arg	Phe	Arg	Phe	Ala	Leu	
	450				455					460						
Asn	Ser	Met	Val	Glu	Lys	His	Leu	Asn	Ser	Gln	Met	Trp	Lys	Lys	Ile	
465					470					475					480	
Pro	Pro	Ala	Ala	Asp	Ser	Pro	Met	Pro	Ser	Pro	Ala	Ala	His	Ile	Thr	
				485					490				495			
Thr	Pro	Val	Pro	Ala	Ser	Val	Leu	Gln	Pro	Phe	Ser	Asn	Pro	Ser	Ala	
			500					505					510			
Val	Tyr	Leu	Pro	Ser	Ala	Pro	Ile	Ser	Ser	Arg	Leu	Thr	Ser	Ser	Tyr	
		515				520						525				
Ile	Met	Thr	Ser	Ala	Met	Leu	Ser	Asp	Ala	Ala	Phe	Val	Thr	Ser	Pro	
	530				535						540					
Asp	Pro	Ser	Ala	Leu	Met	Ser	His	Thr	Thr	Ala	Phe	Pro	His	Val	Ala	
545					550					555						

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625          630          635          640
Pro Leu Ser Gly Pro His Lys Lys Asn Cys Val Leu Asn Ala Ser Ser
          645          650          655
Ala Leu Asn Ser Tyr Gln Ala Ala Pro Pro Tyr Asn Ser Leu Ser Val
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His Asn Ser Asn Asn Gly Val Ser Pro Leu Ser Ala Lys Leu Glu Pro
          675          680          685
Ser Gly Arg Thr Ser Leu Pro Gly Gly Pro Ala Asp Ile Val Arg Gln
          690          695          700
Val Gly Ala Val Gly Gly Ser Ser Asp Ser Cys Pro Leu Ser Val Pro
705          710          715          720
Ser Leu Ala Leu His Ala Gly Asp Leu Ser Leu Ala Ser His Asn Ala
          725          730          735
Val Ser Ser Leu Pro Leu Ser Phe Asp Lys Ser Glu Gly Lys Lys Arg
          740          745          750
Lys Asn Ser Ser Ser Ser Ser Lys Ala Cys Lys Ile Thr Lys Met Pro
          755          760          765
Gly Met Asn Ser Val His Lys Lys Asn Pro Pro Ser Leu Leu Ala Pro
          770          775          780
Val Pro Asp Pro Val Asn Ser Thr Ser Ser Arg Gln Val Gly Lys Asn
785          790          795          800
Ser Ser Leu Ala Leu Ser Gln Ser Ser Pro Ser Ser Ile Ser Ser Pro
          805          810          815
Gly His Ser Arg Gln Asn Thr Asn Arg Thr Gly Arg Ile Arg Thr Leu
          820          825          830
Pro

```

&lt;210&gt; 3199

&lt;211&gt; 777

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3199

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120
caagcagctc ccacagctgg cactggggaa cgtggtgaca cccagaagct tggagatgcc
180
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240
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300
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420
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480
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600

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<210> 3200  
 <211> 92  
 <212> PRT  
 <213> Homo sapiens

<400> 3200  
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 Leu Leu Phe Gly Gln Pro Arg Pro Arg Ser Ser Leu Ser Gln Gly Cys  
 20 25 30  
 Asp Thr Leu Phe Gly Ala Leu Arg Phe Leu Ala Ser Pro Ser Phe Trp  
 35 40 45  
 Val Ser Pro Arg Ser Pro Val Pro Ala Val Gly Ala Ala Cys Cys Met  
 50 55 60  
 Pro Gly Pro Ala Thr Ala Ser Gln Arg Ala Gly Ala Leu Thr Ser Thr  
 65 70 75 80  
 Trp Ser Cys Leu Pro His Cys Ser Ser Arg Arg Val  
 85 90

<210> 3201  
 <211> 390  
 <212> DNA  
 <213> Homo sapiens

<400> 3201  
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 120  
 gaagccgaca gcctttggga ccgaggtcag cagctgcacc ggcgcaagaa ttccaaacac  
 180  
 agctgtggct gaagggcctg ggggtgtgca ggtcccaaac cccagtgagc ctgatcccga  
 240  
 catgggtcct gtctcctggg ggccaccttt gtgtcccgctg gtggctgacc ctgagagggg  
 300  
 gggctgtggg gatgctcaca tgacactggg gtcccagcga cagccctcc tcacgtgcg  
 360  
 tgtccctggg gcctctcagg agggacgcgt  
 390

<210> 3202  
 <211> 116  
 <212> PRT  
 <213> Homo sapiens

<400> 3202  
 Met Gly Thr Arg Lys Gln Leu Pro Ser Arg Leu Pro Gln Ala Gly Arg

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      1           5           10           15
Lys Gly His Ala Ala Ala Gly Val Ser Thr Ala Lys Pro Thr Ala Phe
      20           25           30
Gly Thr Glu Val Ser Ser Cys Thr Gly Ala Arg Ile Pro Asn Thr Ala
      35           40           45
Val Ala Glu Gly Pro Gly Gly Val Gln Val Pro Asn Pro Ser Glu Pro
      50           55           60
Asp Pro Asp Met Gly Pro Val Ser Trp Gly Pro Pro Leu Cys Pro Val
      65           70           75           80
Val Ala Asp Pro Glu Arg Glu Gly Cys Gly Asp Ala His Met Thr Leu
      85           90           95
Gly Ser Gln Arg Gln Pro Leu Leu Thr Leu Arg Val Pro Gly Ala Ser
      100           105           110
Gln Glu Gly Arg
      115

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&lt;210&gt; 3203

&lt;211&gt; 1906

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3203

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120
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720
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840
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900
gagacctgcc aggccgccga gcgccagcgg cttcttttct tcaaggatat gctgctcacc
960

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 1080  
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 1140  
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 1200  
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 1800  
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 1860  
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 1906

&lt;210&gt; 3204

&lt;211&gt; 424

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3204

Met	Ala	Pro	Glu	Glu	Asp	Ala	Gly	Gly	Glu	Ala	Leu	Gly	Gly	Ser	Phe
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Trp	Glu	Ala	Gly	Asn	Tyr	Arg	Arg	Thr	Val	Gln	Arg	Val	Glu	Asp	Gly
			20					25					30		
His	Arg	Leu	Cys	Gly	Asp	Leu	Val	Ser	Cys	Phe	Gln	Glu	Arg	Ala	Arg
		35				40					45				
Ile	Glu	Lys	Ala	Tyr	Ala	Gln	Gln	Leu	Ala	Asp	Trp	Ala	Arg	Lys	Trp
	50				55					60					
Arg	Gly	Thr	Val	Glu	Lys	Gly	Pro	Gln	Tyr	Gly	Thr	Leu	Glu	Lys	Ala
65				70				75					80		
Trp	His	Ala	Phe	Phe	Thr	Ala	Ala	Glu	Arg	Leu	Ser	Ala	Leu	His	Leu
			85					90					95		
Glu	Val	Arg	Glu	Lys	Leu	Gln	Gly	Gln	Asp	Ser	Glu	Arg	Val	Arg	Ala
		100				105						110			
Trp	Gln	Arg	Gly	Ala	Phe	His	Arg	Pro	Val	Leu	Gly	Gly	Phe	Arg	Glu

115	120	125
Ser Arg Ala Ala Glu Asp Gly Phe Arg Lys Ala Gln Lys Pro Trp Leu		
130	135	140
Lys Arg Leu Lys Glu Val Glu Ala Ser Lys Lys Ser Tyr His Ala Ala		
145	150	155
Arg Lys Asp Glu Lys Thr Ala Gln Thr Arg Glu Ser His Ala Lys Ala		
165	170	175
Asp Ser Ala Val Ser Gln Glu Gln Leu Arg Lys Leu Gln Glu Arg Val		
180	185	190
Glu Arg Cys Ala Lys Glu Ala Glu Lys Thr Lys Ala Gln Tyr Glu Gln		
195	200	205
Thr Leu Ala Glu Leu His Arg Tyr Thr Pro Arg Tyr Met Glu Asp Met		
210	215	220
Glu Gln Ala Phe Glu Thr Cys Gln Ala Ala Glu Arg Gln Arg Leu Leu		
225	230	235
Phe Phe Lys Asp Met Leu Leu Thr Leu His Gln His Leu Asp Leu Ser		
245	250	255
Ser Ser Glu Lys Phe His Glu Leu His Arg Asp Leu His Gln Gly Ile		
260	265	270
Glu Ala Ala Ser Asp Glu Glu Asp Leu Arg Trp Trp Arg Ser Thr His		
275	280	285
Gly Pro Gly Met Ala Met Asn Trp Pro Gln Phe Glu Glu Trp Ser Leu		
290	295	300
Asp Thr Gln Arg Thr Ile Ser Arg Lys Glu Lys Gly Gly Arg Ser Pro		
305	310	315
Asp Glu Val Thr Leu Thr Ser Ile Val Pro Thr Arg Asp Gly Thr Ala		
325	330	335
Pro Pro Pro Gln Ser Pro Gly Ser Pro Gly Thr Gly Gln Asp Glu Glu		
340	345	350
Trp Ser Asp Glu Glu Ser Pro Arg Lys Ala Ala Thr Gly Val Arg Val		
355	360	365
Arg Ala Leu Tyr Asp Tyr Ala Gly Gln Glu Ala Asp Glu Leu Ser Phe		
370	375	380
Arg Ala Gly Glu Glu Leu Leu Lys Met Ser Glu Glu Asp Glu Gln Gly		
385	390	395
Trp Cys Gln Gly Gln Leu Gln Ser Gly Arg Ile Gly Leu Tyr Pro Ala		
405	410	415
Asn Tyr Val Glu Cys Val Gly Ala		
420		

&lt;210&gt; 3205

&lt;211&gt; 1482

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3205

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180
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240

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 1482

&lt;210&gt; 3206

&lt;211&gt; 494

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3206

Xaa	Glu	Met	Glu	Gly	Thr	Ser	Pro	Ser	Ser	Pro	Pro	Pro	Ser	Gly	Val
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Arg	Ser	Pro	Pro	Gly	Leu	Ala	Lys	Thr	Pro	Leu	Ser	Ala	Leu	Gly	Leu
			20				25					30			
Lys	Pro	His	Asn	Pro	Ala	Asp	Ile	Leu	Leu	His	Pro	Thr	Gly	Glu	Pro

	35					40					45				
Arg	Ser	Tyr	Val	Glu	Ser	Val	Ala	Arg	Thr	Ala	Val	Ala	Gly	Pro	Arg
	50					55					60				
Ala	Gln	Asp	Ser	Glu	Pro	Lys	Ser	Phe	Ser	Ala	Pro	Ala	Thr	Gln	Ala
65					70					75					80
Tyr	Gly	His	Glu	Ile	Pro	Leu	Arg	Asn	Gly	Thr	Leu	Gly	Gly	Ser	Phe
				85					90					95	
Val	Ser	Pro	Ser	Pro	Leu	Ser	Thr	Ser	Ser	Pro	Ile	Leu	Ser	Ala	Asp
			100					105						110	
Ser	Thr	Ser	Val	Gly	Ser	Phe	Pro	Ser	Gly	Glu	Ser	Ser	Asp	Gln	Gly
			115				120							125	
Pro	Arg	Thr	Pro	Thr	Gln	Pro	Leu	Leu	Glu	Ser	Gly	Phe	Arg	Ser	Gly
			130			135					140				
Ser	Leu	Gly	Gln	Pro	Ser	Pro	Ser	Ala	Gln	Arg	Asn	Tyr	Gln	Ser	Ser
145					150					155					160
Ser	Pro	Leu	Pro	Thr	Val	Gly	Ser	Ser	Tyr	Ser	Ser	Pro	Asp	Tyr	Ser
				165					170					175	
Leu	Gln	His	Phe	Ser	Ser	Ser	Pro	Glu	Ser	Gln	Ala	Arg	Ala	Gln	Phe
			180					185						190	
Ser	Val	Ala	Gly	Val	His	Thr	Val	Pro	Gly	Ser	Pro	Gln	Ala	Arg	His
		195					200					205			
Arg	Thr	Val	Gly	Thr	Asn	Thr	Pro	Pro	Ser	Pro	Gly	Phe	Gly	Trp	Arg
					215						220				
Ala	Ile	Asn	Pro	Ser	Met	Ala	Ala	Pro	Ser	Ser	Pro	Ser	Leu	Ser	His
225					230					235					240
His	Gln	Met	Met	Gly	Pro	Pro	Gly	Thr	Gly	Phe	His	Gly	Ser	Thr	Val
				245					250					255	
Ser	Ser	Pro	Gln	Ser	Ser	Ala	Ala	Thr	Thr	Pro	Gly	Ser	Pro	Ser	Leu
			260					265						270	
Cys	Arg	His	Pro	Ala	Gly	Val	Tyr	Gln	Val	Ser	Gly	Leu	His	Asn	Lys
		275					280					285			
Val	Ala	Thr	Thr	Pro	Gly	Ser	Pro	Ser	Leu	Gly	Arg	His	Pro	Gly	Ala
					295					300					
His	Gln	Gly	Asn	Leu	Ala	Ser	Gly	Leu	His	Ser	Asn	Ala	Ile	Ala	Ser
305					310					315					320
Pro	Gly	Ser	Pro	Ser	Leu	Gly	Arg	His	Leu	Gly	Gly	Ser	Gly	Ser	Val
				325					330					335	
Val	Pro	Gly	Ser	Pro	Cys	Leu	Asp	Arg	His	Val	Ala	Tyr	Gly	Gly	Tyr
			340					345					350		
Ser	Thr	Pro	Glu	Asp	Arg	Arg	Pro	Thr	Leu	Ser	Arg	Gln	Ser	Ser	Ala
			355				360					365			
Ser	Gly	Tyr	Gln	Ala	Pro	Ser	Thr	Pro	Ser	Phe	Pro	Val	Ser	Pro	Ala
					375					380					
Tyr	Tyr	Pro	Gly	Leu	Ser	Ser	Pro	Ala	Thr	Ser	Pro	Ser	Pro	Asp	Ser
385					390					395					400
Ala	Ala	Phe	Arg	Gln											

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<210> 3207
<211> 495
<212> DNA
<213> Homo sapiens
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<210> 3208
<211> 107
<212> PRT
<213> Homo sapiens
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<210> 3209
<211> 346
<212> DNA
<213> Homo sapiens
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&lt;400&gt; 3209

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 tgcgtccagc cttgtccctt ctgacctggg ccctacccac ggggaaatgt tcccatagca  
 120  
 gaagaatcag cccacagtg caggggtgtg ttagtgggga acgggctctg ggctcctgtg  
 180  
 ggaaccaggg accccctatc ttgggtaccg tcattggatg tatccccagc tcatgcctgt  
 240  
 gtctgtcttg gcccggtgtg tcacctgtg ttcattcttc tcccagccat ggctctcaa  
 300  
 actgggggtt tcgtctccct atgagggggg cctggatatg acgcgt  
 346

&lt;210&gt; 3210

&lt;211&gt; 95

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3210

Met	Arg	Pro	Ala	Leu	Ser	Leu	Leu	Thr	Trp	Ala	Leu	Pro	Thr	Gly	Lys
1				5				10						15	
Cys	Ser	His	Ser	Arg	Arg	Ile	Ser	Pro	Thr	Val	Gln	Gly	Cys	Val	Ser
		20						25					30		
Gly	Glu	Arg	Ala	Leu	Gly	Ser	Cys	Gly	Asn	Gln	Gly	Pro	Pro	Ile	Leu
	35						40				45				
Val	Pro	Val	Ile	Gly	Cys	Ile	Pro	Ser	Ser	Cys	Leu	Cys	Leu	Ser	Trp
	50				55						60				
Pro	Val	Trp	Ser	Pro	Cys	Val	His	Leu	Ser	Pro	Ser	His	Gly	Leu	Ser
65					70					75				80	
Asn	Trp	Gly	Phe	Arg	Leu	Pro	Met	Arg	Gly	Ser	Trp	Tyr	Val	Arg	
				85					90					95	

&lt;210&gt; 3211

&lt;211&gt; 1728

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3211

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 60  
 tggacaaaag attccaagtc gatagcccag gccaaagaaa gcgcagggga caactccagt  
 120  
 gtttccttgg ccacgtgca agccagtcgg aaggaccagg gactctatta ctgctgcac  
 180  
 aagaacagct acggaagatg gactgctgaa tttaacctca cagctgaagt tctcaaacag  
 240  
 ctgtcaagtc acacagaata ctaaaggatg tgaagagatt gaattcagcc aactcatctt  
 300  
 caaagaagac ttctccatg acagctactt tggggggccg ctgcgtgggtc agatcgccac  
 360  
 ggaggagctg cactttggag aaggggttca ccgcaaagcc ttccgcagca cagtgatgca  
 420



cggcctcatg cctgtcttca aacctggcca tgcctgtgtg ctttaagggtgc acaatgccat  
 480  
 tgcctatggg accagaaata atgatgagct catccaaagg aactacaaac tcgctgcccc  
 540  
 ggaatgctat gttcaaaata ctgccaggta ttatgccaaag atctacgctg ctgaagcaca  
 600  
 gcctctggaa ggctttggag aagtacctga gatcattcct atttttctta tccatcggcc  
 660  
 tgagaacaat atcccgtatg ctacagtggg ggaggagctg attggagaat ttgtgaagta  
 720  
 tcccatcagg gatgggaaag aaataaaactt cttgagaaga gaatcagaag ctggtcagaa  
 780  
 atgttgacc ttccagcact ggggtgtacca gaaaacaagt ggctgcctcc tggtgacgga  
 840  
 catgcaagggt gtaggaatga agctaactga cgttggcata gcaacgctgg ctaaagggtg  
 900  
 caagggattt aaaggcaact gttccatgac cttcattgat cagtttaaag cactacacca  
 960  
 gtgtaacaag tattgcaaaa tgctgggact gaaatccctt caaaacaaca accagaaaca  
 1020  
 gaagcagccg agcattggga aaagcaaagt tcaaacaac tctatgacag taaagaaggc  
 1080  
 agggcctgag accccaggcg aaaagaaaac ctaacgtccc cgggtaacct aatggccact  
 1140  
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 1200  
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 1260  
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 1320  
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 1380  
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 1440  
 ggacctggtg ctgagaagag tctgttcaca gccaaaattc tccccactgt cattcctaac  
 1500  
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 1560  
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 1620  
 gaagccattt cccatcattc aacagccagt tacaattttc tgtttaatta aattcatatt  
 1680  
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 1728

&lt;210&gt; 3212

&lt;211&gt; 87

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3212

Ser	Gly	Asn	Ile	Lys	Leu	Ser	Tyr	Gln	Phe	Ser	Glu	Ile	His	Glu	Asp
1				5				10				15			
Ser	Thr	Val	Cys	Trp	Thr	Lys	Asp	Ser	Lys	Ser	Ile	Ala	Gln	Ala	Lys

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      20      25      30
Lys Ser Ala Gly Asp Asn Ser Ser Val Ser Leu Ala Ile Val Gln Ala
      35      40      45
Ser Pro Lys Asp Gln Gly Leu Tyr Tyr Cys Cys Ile Lys Asn Ser Tyr
      50      55      60
Gly Lys Val Thr Ala Glu Phe Asn Leu Thr Ala Glu Val Leu Lys Gln
65      70      75      80
Leu Ser Ser His Thr Glu Tyr
      85

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<210> 3213  
 <211> 348  
 <212> DNA  
 <213> Homo sapiens

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<400> 3213
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tctaccgtca tcatggctaa tgaggactgt cccaaggctg ctgatagtcc tttttcatca
120
gataaacatg cccaactcat cttggcccaa atcaataaga tgagaaatgg acagcatttc
180
tgtgatgtgc agctgcaagt tggacaggaa agtttttaaag ctcacggct gggttttggt
240
gccagcagtc cttactttgc agctttgttc actggaggaa tgaaagagtc ctcaaaagat
300
gttgtaccga ttctaggaat tgaagcagga atctttcaga tacttcta
348

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<210> 3214  
 <211> 92  
 <212> PRT  
 <213> Homo sapiens

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<400> 3214
Met Ala Asn Glu Asp Cys Pro Lys Ala Ala Asp Ser Pro Phe Ser Ser
 1      5      10      15
Asp Lys His Ala Gln Leu Ile Leu Ala Gln Ile Asn Lys Met Arg Asn
      20      25      30
Gly Gln His Phe Cys Asp Val Gln Leu Gln Val Gly Gln Glu Ser Phe
      35      40      45
Lys Ala His Arg Leu Val Leu Ala Ala Ser Ser Pro Tyr Phe Ala Ala
      50      55      60
Leu Phe Thr Gly Gly Met Lys Glu Ser Ser Lys Asp Val Val Pro Ile
65      70      75      80
Leu Gly Ile Glu Ala Gly Ile Phe Gln Ile Leu Leu
      85      90

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<210> 3215  
 <211> 597  
 <212> DNA  
 <213> Homo sapiens

<400> 3215

acgcgtgcgc gctcccggca ggagagggcc agccggcccc ggcttaccat cttgaacgtg  
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 tgcaacactg gggacaagat ggtggagtgc cagctggaga cgcacaacca caagatgggtg  
 120  
 accttcaagt tcgacttggga cggggacgca cccgatgaaa ttgccacgta tatgggtggag  
 180  
 catgacttta tcctgcaggc cgagcgggaa acgttcatcg agcagatgaa ggatgtcatg  
 240  
 gacaaggcag aggacatgct cagcgaggac acagacgccg accgtggctc cgaccagggg  
 300  
 accagcccgc cacacctcag cacctgcggc ctggggaccg gggaggagag ccgacaatcc  
 360  
 caagccaacg cccccgtgta tcagcagaac gtctgcaca ccgggaagag gtgggttcac  
 420  
 atctgtccgg tgctgagcc ccccgcccc gagggccctt gaatcttcgc cccacttcc  
 480  
 tctaagctcc ctgccgccag aagccagcca agattcagcg ccctataaag accagctgtc  
 540  
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 597

<210> 3216  
 <211> 153  
 <212> PRT  
 <213> Homo sapiens

<400> 3216  
 Thr Arg Ala Arg Ser Arg Gln Glu Arg Ala Ser Arg Pro Arg Leu Thr  
 1 5 10 15  
 Ile Leu Asn Val Cys Asn Thr Gly Asp Lys Met Val Glu Cys Gln Leu  
 20 25 30  
 Glu Thr His Asn His Lys Met Val Thr Phe Lys Phe Asp Leu Asp Gly  
 35 40 45  
 Asp Ala Pro Asp Glu Ile Ala Thr Tyr Met Val Glu His Asp Phe Ile  
 50 55 60  
 Leu Gln Ala Glu Arg Glu Thr Phe Ile Glu Gln Met Lys Asp Val Met  
 65 70 75 80  
 Asp Lys Ala Glu Asp Met Leu Ser Glu Asp Thr Asp Ala Asp Arg Gly  
 85 90 95  
 Ser Asp Pro Gly Thr Ser Pro Pro His Leu Ser Thr Cys Gly Leu Gly  
 100 105 110  
 Thr Gly Glu Glu Ser Arg Gln Ser Gln Ala Asn Ala Pro Val Tyr Gln  
 115 120 125  
 Gln Asn Val Leu His Thr Gly Lys Arg Trp Phe Ile Ile Cys Pro Val  
 130 135 140  
 Pro Glu Pro Pro Ala Pro Glu Gly Pro  
 145 150

<210> 3217  
 <211> 2570  
 <212> DNA  
 <213> Homo sapiens

<400> 3217

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gactttgtaa agctgcggga aatgctcatt tgtacaaata tggaggacct gcgagagcag  
120  
accatacca ggcactatga gctttacagg cgctgcaaac tggaggaaat gggctttaca  
180  
gatgtgggccc cagaaaacaa gccagtcagt gttcaagaga cctatgaagc caaaagacat  
240  
gagttccatg gtgaacgtca gaggaaggaa gaagaaatga aacagatgtt tgtgcagcga  
300  
gtaaaggaga aagaagccat attgaaagaa gctgagagag agctacaggc caaatttgag  
360  
caccttaaga gacttcacca agaagagaga atgaagcttg aagaacaaag aagacttttg  
420  
gaagaagaaa taattgcttt ctctaaaaag aaagctacct ccgagatatt tcacagccag  
480  
tcctttctgg caacaggcag caacctgagt aaggacaagg accataagaa ctccaatttt  
540  
ttgtaaaaca gaagttccag agcacagaag gtcacatca caagcaaact ttattaaaaa  
600  
aaaactagaa gtgtgctttg attttgctgt tatttgtttt atcacttcta tatttggtga  
660  
acagccacag ttactgatat ttatggaaaa gtactttcaa gtacaaggtc aatacataag  
720  
ccagagtga tgaactaca agttgagcat ctctaattca aaaatctgaa atccagaagc  
780  
ttcaaaatct gaatcttttt gagcactgac ttgacccac aagtggaaaa tccccaccc  
840  
gacacctttg ctttctgatg gttcagttta aacagatttt gtttcttgca caaaattttt  
900  
gtataaatta ctttcaggct atatgtataa ggtggatgtg aaacatgaat tatgtaatta  
960  
gagtcgggtc ccgttggtga tatgcagata ttccaaacct gaaatccaaa acacttctgg  
1020  
tccttagcat tttggataag ggatactcag cttgtaccta tatattcata tatattcact  
1080  
gttgtagaa atgtttaagt tgctgttctg tgatgaatct aaatcttttc tcttgctacc  
1140  
aagctattgt cactgcagtg cattatacca aagagcgaag tcagtgccac tgaaaatata  
1200  
gaaccatta atatcgtggc tatctgatta catttatatt ccaagatgaa ctttttttta  
1260  
tatatgctaa aaattttggg gaatatgttt tgggatgtat tatggagcta aaactctaac  
1320  
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1380  
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1620

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 1800  
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 1860  
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 1920  
 tgttaaagga aaaaaaagag gggggaagat cagggtcatac tatctactct cctcatctct  
 1980  
 aacagctcag gatctcttag cattttaatt agatgtaatt gtttgtcttt aactgtcaaa  
 2040  
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 2280  
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 2340  
 tgagtcaggt ttgagtagag gcttagagac agttgggtga gaacaaccaa aatcttatca  
 2400  
 tgggtctcagt cataatcatt agggggaact ctagccaaat ggtttaactt ctgcctgtgg  
 2460  
 aactggggat tgggtgggca ggaaaagggtg atatccattc tttctgataa ctagatgggtg  
 2520  
 ctgagaagct tttgaataaa aactttgcta aatgaaaaaa aaaaaaaaaa  
 2570

&lt;210&gt; 3218

&lt;211&gt; 181

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3218

Gly	Val	Lys	Ala	Arg	Gln	Tyr	Pro	Trp	Gly	Val	Val	Gln	Val	Glu	Asn
1			5						10					15	
Glu	Asn	His	Cys	Asp	Phe	Val	Lys	Leu	Arg	Glu	Met	Leu	Ile	Cys	Thr
			20					25					30		
Asn	Met	Glu	Asp	Leu	Arg	Glu	Gln	Thr	His	Thr	Arg	His	Tyr	Glu	Leu
			35				40						45		
Tyr	Arg	Arg	Cys	Lys	Leu	Glu	Glu	Met	Gly	Phe	Thr	Asp	Val	Gly	Pro
			50				55					60			
Glu	Asn	Lys	Pro	Val	Ser	Val	Gln	Glu	Thr	Tyr	Glu	Ala	Lys	Arg	His
							70				75			80	
Glu	Phe	His	Gly	Glu	Arg	Gln	Arg	Lys	Glu	Glu	Glu	Met	Lys	Gln	Met
			85					90						95	
Phe	Val	Gln	Arg	Val	Lys	Glu	Lys	Glu	Ala	Ile	Leu	Lys	Glu	Ala	Glu
			100					105					110		
Arg	Glu	Leu	Gln	Ala	Lys	Phe	Glu	His	Leu	Lys	Arg	Leu	His	Gln	Glu

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      115              120              125
Glu Arg Met Lys Leu Glu Glu Gln Arg Arg Leu Leu Glu Glu Ile
      130              135              140
Ile Ala Phe Ser Lys Lys Lys Ala Thr Ser Glu Ile Phe His Ser Gln
145              150              155              160
Ser Phe Leu Ala Thr Gly Ser Asn Leu Ser Lys Asp Lys Asp His Lys
      165              170              175
Asn Ser Asn Phe Leu
      180

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&lt;210&gt; 3219

&lt;211&gt; 1241

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3219

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120
gagcgggaga cagacatcct ggacgatgaa ttgccaaacc aggatggtca cagtgcgggc
180
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600
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780
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900
cagtcccatc cactgaccca gtccagatct ggctatatcc ccagtgggca ttcgttggga
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ccttatgact atcagccatg ttgggtggg cctaaccagg atttccattc aaagagccca
1080
gcctcttct ccttgctgc cttccttccg accaccacac gccctccagg gcctcagcaa
1140

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ccccagcct ctctccctgg cctcactgct cagcctctgc tctcaccaaa ggaagcgact  
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 1241

<210> 3220

<211> 413

<212> PRT

<213> Homo sapiens

<400> 3220

Ala	Arg	His	Val	Pro	His	Pro	Ala	Pro	Gln	Val	Pro	Pro	Ser	Arg	Gly	1	5	10	15
Leu	Gly	Cys	Ala	Ser	Ser	Gly	Arg	His	Val	Val	Pro	Ala	Gln	Val	His	20	25	30	
Val	Asn	Gly	Gly	Xaa	Val	Thr	Ser	Glu	Arg	Glu	Thr	Asp	Ile	Leu	Asp	35	40	45	
Asp	Glu	Leu	Pro	Asn	Gln	Asp	Gly	His	Ser	Ala	Gly	Ser	Met	Gly	Thr	50	55	60	
Leu	Ser	Ser	Leu	Asp	Gly	Val	Thr	Asn	Ile	Ser	Glu	Gly	Gly	Tyr	Pro	65	70	75	80
Glu	Ala	Leu	Ser	Pro	Leu	Thr	Asn	Gly	Leu	Asp	Lys	Ser	Tyr	Pro	Met	85	90	95	
Glu	Pro	Met	Val	Asn	Gly	Gly	Gly	Tyr	Pro	Tyr	Glu	Ser	Ala	Ser	Arg	100	105	110	
Ala	Gly	Pro	Ala	His	Ala	Gly	His	Thr	Ala	Pro	Met	Arg	Pro	Ser	Tyr	115	120	125	
Ser	Ala	Gln	Glu	Gly	Leu	Ala	Gly	Tyr	Gln	Arg	Glu	Gly	Pro	His	Pro	130	135	140	
Ala	Trp	Pro	Gln	Pro	Val	Thr	Thr	Ser	His	Tyr	Ala	His	Asp	Pro	Ser	145	150	155	160
Gly	Met	Phe	Arg	Ser	Gln	Ser	Phe	Ser	Glu	Ala	Glu	Pro	Gln	Leu	Pro	165	170	175	
Pro	Ala	Pro	Val	Arg	Gly	Gly	Ser	Ser	Arg	Glu	Ala	Val	Gln	Arg	Gly	180	185	190	
Leu	Asn	Ser	Trp	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Pro	Arg	Pro	195	200	205	
Pro	Pro	Arg	Gln	Gln	Glu	Arg	Ala	His	Leu	Glu	Ser	Leu	Val	Ala	Ser	210	215	220	
Arg	Pro	Ser	Pro	Gln	Pro	Leu	Ala	Glu	Thr	Pro	Ile	Pro	Ser	Leu	Pro	225	230	235	240
Glu	Phe	Pro	Arg	Ala	Ala	Ser	Gln	Gln	Glu	Ile	Glu	Gln	Ser	Ile	Glu	245	250	255	
Thr	Leu	Asn	Met	Leu	Met	Leu	Asp	Leu	Glu	Pro	Ala	Ser	Ala	Ala	Ala	260	265	270	
Pro	Leu	His	Lys	Ser	Gln	Ser	Val	Pro	Gly	Ala	Trp	Pro	Gly	Ala	Ser	275	280	285	
Pro	Leu	Ser	Ser	Gln	Pro	Leu	Ser	Gly	Ser	Ser	Arg	Gln	Ser	His	Pro	290	295	300	
Leu	Thr	Gln	Ser	Arg	Ser	Gly	Tyr	Ile	Pro	Ser	Gly	His	Ser	Leu	Gly	305	310	315	320
Thr	Pro	Glu	Pro	Ala	Pro	Arg	Ala	Ser	Leu	Glu	Ser	Val	Pro	Pro	Gly	325	330	335	
Arg	Ser	Tyr	Ser	Pro	Tyr	Asp	Tyr	Gln	Pro	Cys	Leu	Ala	Gly	Pro	Asn				

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240
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360
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720
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960
aaggagtcta tgggcccgcg gggctgtgat gagtgatect gagcccgctg ctttgggctc
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1140

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 <211> 331  
 <212> PRT  
 <213> Homo sapiens

<400> 3222  
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 Trp Val Glu Glu Pro Gln Arg Ser Cys Thr Ala Arg Arg Trp His Ile  
 20 25 30  
 Gln Ala Thr Gly Gly Val Glu Pro Ala Gly Trp Lys Glu Met Arg Cys  
 35 40 45  
 His Leu Arg Ala Asn Gly Tyr Leu Cys Lys Tyr Gln Phe Glu Val Leu  
 50 55 60  
 Cys Pro Ala Pro Arg Pro Gly Ala Ala Ser Asn Leu Ser Tyr Arg Ala  
 65 70 75 80  
 Pro Phe Gln Leu His Ser Ala Ala Leu Asp Phe Ser Pro Pro Gly Thr  
 85 90 95  
 Glu Val Ser Ala Leu Cys Arg Gly Gln Leu Pro Ile Ser Val Thr Cys  
 100 105 110  
 Ile Ala Asp Glu Ile Gly Ala Arg Trp Asp Lys Leu Ser Gly Asp Val  
 115 120 125  
 Leu Cys Pro Cys Pro Gly Arg Tyr Leu Arg Ala Gly Lys Cys Ala Glu  
 130 135 140  
 Leu Pro Asn Cys Leu Asp Asp Leu Gly Gly Phe Ala Cys Glu Cys Ala  
 145 150 155 160  
 Thr Gly Phe Glu Leu Gly Lys Asp Gly Arg Ser Cys Val Thr Ser Gly  
 165 170 175  
 Glu Gly Gln Pro Thr Leu Gly Gly Thr Gly Val Pro Thr Arg Arg Pro  
 180 185 190  
 Pro Ala Thr Ala Thr Ser Pro Val Pro Gln Arg Thr Trp Pro Ile Arg  
 195 200 205  
 Val Asp Glu Lys Leu Gly Glu Thr Pro Leu Val Pro Glu Gln Asp Asn  
 210 215 220  
 Ser Val Thr Ser Ile Pro Glu Ile Pro Arg Trp Gly Ser Gln Ser Thr  
 225 230 235 240  
 Met Ser Thr Leu Gln Met Ser Leu Gln Ala Glu Ser Lys Ala Thr Ile

<210> 3224

<211> 224  
 <212> PRT  
 <213> Homo sapiens

<400> 3224  
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 1 5 10 15  
 Ser Asn Pro Asp Ser Leu Ile Phe Gly Ala Leu Thr Ile Met Thr Gly  
 20 25 30  
 Val Ile Gly Val Ile Leu Gly Ala Glu Ala Ser Arg Arg Tyr Lys Lys  
 35 40 45  
 Val Ile Pro Gly Ala Glu Pro Leu Ile Cys Ala Ser Ser Leu Leu Ala  
 50 55 60  
 Thr Ala Pro Cys Leu Tyr Leu Ala Leu Val Leu Ala Pro Thr Thr Leu  
 65 70 75 80  
 Leu Ala Ser Tyr Val Phe Leu Gly Leu Gly Glu Leu Leu Leu Ser Cys  
 85 90 95  
 Asn Trp Ala Val Val Ala Asp Ile Leu Leu Ser Val Val Val Pro Arg  
 100 105 110  
 Cys Arg Gly Thr Ala Glu Ala Leu Gln Ile Thr Val Gly His Ile Leu  
 115 120 125  
 Gly Asp Ala Gly Ser Pro Tyr Leu Thr Gly Leu Ile Ser Ser Val Leu  
 130 135 140  
 Arg Pro Gly Ala Leu Thr Pro Leu Gln Arg Phe Arg Ser Leu Gln Gln  
 145 150 155 160  
 Ser Phe Leu Cys Cys Ala Phe Val Ile Ala Leu Gly Gly Gly Cys Phe  
 165 170 175  
 Leu Leu Thr Ala Leu Tyr Leu Glu Arg Asp Glu Thr Arg Ala Trp Gln  
 180 185 190  
 Pro Val Thr Gly Thr Pro Asp Ser Asn Asp Val Asp Ser Asn Asp Leu  
 195 200 205  
 Glu Arg Gln Gly Leu Leu Ser Gly Ala Gly Ala Ser Thr Glu Glu Pro  
 210 215 220

<210> 3225  
 <211> 506  
 <212> DNA  
 <213> Homo sapiens

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 120  
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 180  
 attctgcctg tttcccagtc cctaaaatgc ctgtgccatg tgccctgggt gaagaactag  
 240  
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 300  
 aagtggaacc acagcctcaa cccacacaga ggatggaacc accttctgca gctaaaaata  
 360  
 accacaccgc ctttgaggtg agccacccaa gatgcagggtg gggctgtatg aaactccacg  
 420

aacatgggat gagtttcatt ttcaggggttc cgagggggcca tgagtgggtac caagatccct  
 480  
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 506

<210> 3226  
 <211> 137  
 <212> PRT  
 <213> Homo sapiens

<400> 3226  
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 1 5 10 15  
 Leu Arg Pro Cys Thr Phe Phe Ile Gln Glu Ala Thr Lys Asn Ser Ala  
 20 25 30  
 Cys Phe Pro Val Pro Lys Met Pro Val Pro Cys Ala Leu Gly Glu Glu  
 35 40 45  
 Leu Val Pro Cys His Arg Gly Thr Gly Pro Ala Val Val Trp Pro Ala  
 50 55 60  
 Gln Pro Gln Gln Gly Glu Val Glu Pro Gln Pro Gln Pro Thr Gln Arg  
 65 70 75 80  
 Met Glu Pro Pro Ser Ala Ala Lys Asn Asn His Thr Ala Phe Glu Val  
 85 90 95  
 Ser His Pro Arg Cys Arg Trp Gly Cys Met Lys Leu His Glu His Gly  
 100 105 110  
 Met Ser Phe Ile Phe Arg Val Pro Arg Gly His Glu Trp Tyr Gln Asp  
 115 120 125  
 Pro Trp Arg Cys Pro Trp Phe Pro Met  
 130 135

<210> 3227  
 <211> 1623  
 <212> DNA  
 <213> Homo sapiens

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 agactgagag aggaaaggat agaggaagtg ctgccctagg ctgcatgagt cgaagcaagc  
 120  
 gtgtttcctt cccgccaggc aagtgcctt agaaaccggg ccccgcccc ttctggcct  
 180  
 gcattcccat cccctctccc ggggaggagg tgaggacctc cttggttctt ttggttctgt  
 240  
 cagtgaagccc ctctcttggc catgaagctc gtgaggaaga acatcgagaa ggacaatgag  
 300  
 ggccagggtga ccctgggtccc cgaggagcct gaggacatgt ggcacactta caacctcgtg  
 360  
 caggtgggag acagcctgag cgctccacc atccgcaagg tacagacaga gtcctccacg  
 420  
 ggcagcgtgg gcagcaaccg ggctccgact accctcactc tctgcgtgga ggccatcgac  
 480  
 ttcgactctc aagcctgccg gctgcgggtt aaggggacca acatccaaga gaatgagtat  
 540

gtcaagatgg gggcttacca caccatcgag ctggagccca accgccagtt caccctggcc  
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 660  
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 720  
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 840  
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 aaagaggccc tttgtgacct tactgtgggt agccgccttt cagacactaa agctgctggg  
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 1620  
 aaa  
 1623

&lt;210&gt; 3228

&lt;211&gt; 385

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3228

Met	Lys	Leu	Val	Arg	Lys	Asn	Ile	Glu	Lys	Asp	Asn	Ala	Gly	Gln	Val
1				5				10					15		
Thr	Leu	Val	Pro	Glu	Glu	Pro	Glu	Asp	Met	Trp	His	Thr	Tyr	Asn	Leu
			20				25					30			
Val	Gln	Val	Gly	Asp	Ser	Leu	Arg	Ala	Ser	Thr	Ile	Arg	Lys	Val	Gln
		35				40				45					
Thr	Glu	Ser	Ser	Thr	Gly	Ser	Val	Gly	Ser	Asn	Arg	Val	Arg	Thr	Thr
	50				55			60							
Leu	Thr	Leu	Cys	Val	Glu	Ala	Ile	Asp	Phe	Asp	Ser	Gln	Ala	Cys	Gln

```

65          70          75          80
Leu Arg Val Lys Gly Thr Asn Ile Gln Glu Asn Glu Tyr Val Lys Met
          85          90          95
Gly Ala Tyr His Thr Ile Glu Leu Glu Pro Asn Arg Gln Phe Thr Leu
          100          105          110
Ala Lys Lys Gln Trp Asp Ser Val Val Leu Glu Arg Ile Glu Gln Ala
          115          120          125
Cys Asp Pro Ala Trp Ser Ala Asp Val Ala Ala Val Val Met Gln Glu
          130          135          140
Gly Leu Ala His Ile Cys Leu Val Thr Pro Ser Met Thr Leu Thr Arg
145          150          155          160
Ala Lys Val Glu Val Asn Ile Pro Arg Lys Arg Lys Gly Asn Cys Ser
          165          170          175
Gln His Asp Arg Ala Leu Glu Arg Phe Tyr Glu Gln Val Val Gln Ala
          180          185          190
Ile Gln Arg His Ile His Phe Asp Val Val Lys Cys Ile Leu Val Ala
          195          200          205
Ser Pro Gly Phe Val Arg Glu Gln Phe Cys Asp Tyr Met Phe Gln Gln
          210          215          220
Ala Val Lys Thr Asp Asn Lys Leu Leu Leu Glu Asn Arg Ser Lys Phe
225          230          235          240
Leu Gln Val His Ala Ser Ser Gly His Lys Tyr Ser Leu Lys Glu Ala
          245          250          255
Leu Cys Asp Pro Thr Val Ala Ser Arg Leu Ser Asp Thr Lys Ala Ala
          260          265          270
Gly Glu Val Lys Ala Leu Asp Asp Phe Tyr Lys Met Leu Gln His Glu
          275          280          285
Pro Asp Arg Ala Phe Tyr Gly Leu Lys Gln Val Glu Lys Ala Asn Glu
          290          295          300
Ala Met Ala Ile Asp Thr Leu Leu Ile Ser Asp Glu Leu Phe Arg His
305          310          315          320
Gln Asp Val Ala Thr Arg Ser Arg Tyr Val Arg Leu Val Asp Ser Val
          325          330          335
Lys Glu Asn Ala Gly Thr Val Arg Ile Phe Ser Ser Leu His Val Ser
          340          345          350
Gly Glu Gln Leu Ser Gln Leu Thr Gly Val Ala Ala Ile Leu Arg Phe
          355          360          365
Pro Val Pro Glu Leu Ser Asp Gln Glu Gly Asp Ser Ser Ser Glu Glu
          370          375          380
Asp
385

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&lt;210&gt; 3229

&lt;211&gt; 1008

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3229

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120
ggccggctaa ggtgcgcgtg ctcgctggtt ctaacccttc tggtgggcgt ttctgctgag
180

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 420  
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<210> 3230

<211> 232

<212> PRT

<213> Homo sapiens

<400> 3230

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Cys	Ser	Asp	Gly	Phe	Ala	Phe	Pro	Gln	Tyr	Pro	Ile	Lys	Pro	Tyr	His
			20					25					30		
Leu	Lys	Arg	Ile	His	Arg	Ala	Val	Leu	Arg	Gly	Asn	Leu	Glu	Glu	Leu
			35				40					45			
Lys	Tyr	Leu	Leu	Leu	Thr	Tyr	Tyr	Asp	Ile	Asn	Lys	Arg	Asp	Arg	Lys
			50			55					60				
Glu	Arg	Thr	Ala	Leu	His	Leu	Ala	Cys	Ala	Thr	Gly	Gln	Pro	Glu	Met
65					70					75				80	
Val	His	Leu	Leu	Val	Ser	Arg	Arg	Cys	Glu	Leu	Asn	Leu	Cys	Asp	Arg
				85					90					95	
Glu	Asp	Arg	Thr	Pro	Leu	Ile	Lys	Ala	Val	Gln	Leu	Arg	Gln	Glu	Ala
			100				105						110		
Cys	Ala	Thr	Leu	Leu	Leu	Gln	Asn	Gly	Ala	Asp	Pro	Asn	Ile	Thr	Asp
			115				120					125			
Val	Phe	Gly	Arg	Thr	Ala	Leu	His	Tyr	Ala	Val	Tyr	Asn	Glu	Asp	Thr
			130				135					140			
Ser	Met	Ile	Glu	Lys	Leu	Leu	Ser	His	Gly	Thr	Asn	Ile	Glu	Glu	Cys

```

145          150          155          160
Ser Lys Asn Glu Tyr Gln Pro Leu Leu Leu Ala Val Ser Arg Arg Lys
          165          170          175
Val Lys Met Val Glu Phe Leu Leu Lys Lys Lys Ala Asn Val Asn Ala
          180          185          190
Ile Asp Tyr Leu Gly Arg Ser Ala Leu Ile Leu Ala Val Thr Leu Gly
          195          200          205
Glu Lys Asp Ile Val Ile Leu Leu Leu Gln His Asn Ile Asp Val Phe
          210          215          220
Ser Arg Asp Val Tyr Gly Lys Leu
225          230

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<210> 3231
<211> 1367
<212> DNA
<213> Homo sapiens

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120
taacagtcgc ggagccggcc gcgtcgtgag ggggtcggca cggggagtcg ggcggtcttg
180
tgcattcttg ctacctgtgg gtccaagatg tcggacatcg gagactggtt caggagcatc
240
ccggcgatca cgcgctattg gttcgccgcc accgtcgccg tgcccttggt cggcaaactc
300
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420
tatttggtca atttatattt cttatatcag tattctacgc gacttgaaac aggagctttt
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720
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780
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840
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1080

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 1260  
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<210> 3232

<211> 251

<212> PRT

<213> Homo sapiens

<400> 3232

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Tyr	Trp	Phe	Ala	Ala	Thr	Val	Ala	Val	Pro	Leu	Val	Gly	Lys	Leu	Gly	30
			20					25								
Leu	Ile	Ser	Pro	Ala	Tyr	Leu	Phe	Leu	Trp	Pro	Glu	Ala	Phe	Leu	Tyr	45
			35				40									
Arg	Phe	Gln	Ile	Trp	Arg	Pro	Ile	Thr	Ala	Thr	Phe	Tyr	Phe	Pro	Val	60
			50			55										
Gly	Pro	Gly	Thr	Gly	Phe	Leu	Tyr	Leu	Val	Asn	Leu	Tyr	Phe	Leu	Tyr	80
65					70					75						
Gln	Tyr	Ser	Thr	Arg	Leu	Glu	Thr	Gly	Ala	Phe	Asp	Gly	Arg	Pro	Ala	95
				85					90							
Asp	Tyr	Leu	Phe	Met	Leu	Leu	Phe	Asn	Trp	Ile	Cys	Ile	Val	Ile	Thr	110
			100					105								
Gly	Leu	Ala	Met	Asp	Met	Gln	Leu	Leu	Met	Ile	Pro	Leu	Ile	Met	Ser	125
			115				120									
Val	Leu	Tyr	Val	Trp	Ala	Gln	Leu	Asn	Arg	Asp	Met	Ile	Val	Ser	Phe	140
			130			135										
Trp	Phe	Gly	Thr	Arg	Phe	Lys	Ala	Cys	Tyr	Leu	Pro	Trp	Val	Ile	Leu	160
145					150					155						
Gly	Phe	Asn	Tyr	Ile	Ile	Gly	Gly	Ser	Val	Ile	Asn	Glu	Leu	Ile	Gly	175
				165					170							
Asn	Leu	Val	Gly	His	Leu	Tyr	Phe	Phe	Leu	Met	Phe	Arg	Tyr	Pro	Met	190
			180					185								
Asp	Leu	Gly	Gly	Arg	Asn	Phe	Leu	Ser	Thr	Pro	Gln	Phe	Leu	Tyr	Arg	205
			195				200									
Trp	Leu	Pro	Ser	Arg	Arg	Gly	Gly	Val	Ser	Gly	Phe	Gly	Val	Pro	Pro	220
			210			215										
Ala	Ser	Met	Arg	Arg	Ala	Ala	Asp	Gln	Asn	Gly	Gly	Gly	Gly	Arg	His	240
225					230					235						
Asn	Trp	Gly	Gln	Gly	Phe	Arg	Leu	Gly	Asp	Gln						
				245						250						

<210> 3233

<211> 975

<212> DNA

<213> Homo sapiens

&lt;400&gt; 3233

nacgcgtacg tgggtggagct ctgcgtgttt actatttttg gaaatgaaga aaatggaaag  
 60  
 accgttggtt acccttggtgc ttccatctg ttctttgtta tgtttgtatg gtcctattgg  
 120  
 atgacaattt tcacatctcc cgttccccc tccaaagagt tctacttgtc caattctgaa  
 180  
 aaggaacgtt atgaaaaaga attcagccaa gaaagacaac aagaaatttt gagaagagca  
 240  
 gcaagagctt tacctatcta taccacatca gttcaaaaa ctatcagata ttgtgaaaaa  
 300  
 tgtcagctga ttaaacctga tcgggcgcac cactgctcag cctgtgactc atgtattctt  
 360  
 aagatggatc atccctgtcc ttgggtgaat aactgtgtgg gattttctaa ttacaaattc  
 420  
 ttctgtctgt ttttattgta ttccctatta tattgccttt tcgtggccgc acagttttag  
 480  
 agtacttaaa aaattttgga cgaaagaacc gaccaaacc cgggcaaaa ttccacgtac  
 540  
 ttttttcttt tctttgtgtc tgcaatgttc ttcatcagcg tcctctcact ttccagctac  
 600  
 cactgctggc tttaaacagc attgtccaca gtcctgtctg cagggtcagg gcatggcctc  
 660  
 tctccgtgtt cctgtgaaga gccttcattg gaatcatccc gggacatata gcttgaatgt  
 720  
 gctgtctggc tagccctcc acaagtcggt cactctgcac aaggaatccg agagctcatc  
 780  
 aaggatcagc acggtctggg gccaggtgg ggtggaacac gcacggtcca caagcaattc  
 840  
 tgtctttctc aaggcttttt cttgtgcagt atgaaatcct tcatatttca tatgaagtat  
 900  
 gtgccttctg gggcactgag ctcaggaact caaaaagac cccttcgggc cggatcccgg  
 960  
 cttcaaggct gcccc  
 975

&lt;210&gt; 3234

&lt;211&gt; 159

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3234

Xaa Ala Tyr Val Val Glu Leu Cys Val Phe Thr Ile Phe Gly Asn Glu  
 1 5 10 15  
 Glu Asn Gly Lys Thr Val Val Tyr Leu Val Ala Phe His Leu Phe Phe  
 20 25 30  
 Val Met Phe Val Trp Ser Tyr Trp Met Thr Ile Phe Thr Ser Pro Ala  
 35 40 45  
 Ser Pro Ser Lys Glu Phe Tyr Leu Ser Asn Ser Glu Lys Glu Arg Tyr  
 50 55 60  
 Glu Lys Glu Phe Ser Gln Glu Arg Gln Gln Glu Ile Leu Arg Arg Ala  
 65 70 75 80  
 Ala Arg Ala Leu Pro Ile Tyr Thr Thr Ser Ala Ser Lys Thr Ile Arg

```

      85              90              95
Tyr Cys Glu Lys Cys Gln Leu Ile Lys Pro Asp Arg Ala His His Cys
      100              105              110
Ser Ala Cys Asp Ser Cys Ile Leu Lys Met Asp His Pro Cys Pro Trp
      115              120              125
Val Asn Asn Cys Val Gly Phe Ser Asn Tyr Lys Phe Phe Leu Leu Phe
      130              135              140
Leu Leu Tyr Ser Leu Leu Tyr Cys Leu Phe Val Ala Ala Gln Phe
      145              150              155

```

&lt;210&gt; 3235

&lt;211&gt; 551

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3235

```

ntggaaactg agcttcaaac atataagcat tctcgtcagg ggctagatga aatgtacaat
60
gaagccagaa ggcagcttcg agatgaatct cagttacgac aggatgtaga gaatgagcta
120
gcagtacaag ttagtatgaa gcatgagatt gaacttgcca tgaagttgct ggagaaagat
180
atccatgaga aacaagatac tctgataggc cttcgacaac aactagagga agttaagca
240
attaacatag agatgtatca aaagttgcag ggttctgaag atggcttgaa agaaaaaat
300
gaaataattg cccgactaga agaaaaaacc aataaaatta ctgcagccat gaggcagctg
360
gaacaaagat tgcagcaagc agagaaggcg caaatggaag ctgaagatga ggatgagaaa
420
tatctacaag aatgtctcag taaatctgat agtctgcaga aacaaatctc caaaaggag
480
aaacagctgg tgcaactgga aactgacttg aagattgaga aggaatggag gcagactttg
540
caggaagatc t
551

```

&lt;210&gt; 3236

&lt;211&gt; 183

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3236

```

Xaa Glu Thr Glu Leu Gln Thr Tyr Lys His Ser Arg Gln Gly Leu Asp
1              5              10              15
Glu Met Tyr Asn Glu Ala Arg Arg Gln Leu Arg Asp Glu Ser Gln Leu
      20              25              30
Arg Gln Asp Val Glu Asn Glu Leu Ala Val Gln Val Ser Met Lys His
      35              40              45
Glu Ile Glu Leu Ala Met Lys Leu Leu Glu Lys Asp Ile His Glu Lys
      50              55              60
Gln Asp Thr Leu Ile Gly Leu Arg Gln Gln Leu Glu Glu Val Lys Ala
      65              70              75              80
Ile Asn Ile Glu Met Tyr Gln Lys Leu Gln Gly Ser Glu Asp Gly Leu

```

	85		90		95										
Lys	Glu	Lys	Asn	Glu	Ile	Ile	Ala	Arg	Leu	Glu	Glu	Lys	Thr	Asn	Lys
	100							105					110		
Ile	Thr	Ala	Ala	Met	Arg	Gln	Leu	Glu	Gln	Arg	Leu	Gln	Gln	Ala	Glu
	115						120					125			
Lys	Ala	Gln	Met	Glu	Ala	Glu	Asp	Glu	Asp	Glu	Lys	Tyr	Leu	Gln	Glu
	130						135				140				
Cys	Leu	Ser	Lys	Ser	Asp	Ser	Leu	Gln	Lys	Gln	Ile	Ser	Gln	Lys	Glu
	145				150				155					160	
Lys	Gln	Leu	Val	Gln	Leu	Glu	Thr	Asp	Leu	Lys	Ile	Glu	Lys	Glu	Trp
			165					170						175	
Arg	Gln	Thr	Leu	Gln	Glu	Asp									
			180												

&lt;210&gt; 3237

&lt;211&gt; 1323

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3237

```

nctctgggct gcgacctacc tcgcagaggg gtttgacta aggcgctggg cgccgggctc
60
cgggcgctgt ggaccatggc tccgcccgcg gcgcctggcc gggaccgtgt gggccgtgag
120
gatgaggacc gttgggaagt acggggggac cgcaaggccc ggaagcccct ggtggagaag
180
aagcgacgcg cgcgatcaa cgagagtctt caggagtgtc ggctgctgct ggcgggcgcc
240
gaggtgcagg ccaagctgga gaacgccgaa gtgctggagc tgacggtgcg gcgggtccag
300
ggtgtgctgc ggggcccggc gcgcgagcgc gagcagctgc aggcggaagc gagcgagcgc
360
ttcgctgccg gctacatcca gtgcatgcac gaggtgcaca cgttcgtgtc cacgtgccag
420
gccatcgacg ctaccgtcgc tgccgagctc ctgaaccatc tgctcgagtc catgccgtg
480
cgtgagggca gcagcttcca ggatctgctg ggggacgccc tggcggggcc acctagagcc
540
cctggacgga gtggctggcc tgccggggggc gctccgggat ccccaatacc cagccccccg
600
ggtcctgggg acgacctgtg ctccgacctg gaggaggccc ctgaggetga actgagtcag
660
gctcctgctg aggggcccga cttggtgccc gcagccctgg gcagcctgac cacagcccaa
720
attgcccgga gtgtctggag gccttgggtga ccaatgccag ccagagtcct gcgggggtgg
780
gccggccct ccctggatct cctccctcct cccagggggt cagatgtggt ggggtagggc
840
cctggaagtc tcccaggtct tccctccctc ctctgatgga tggcttgagc ggcagccct
900
ggtaaccagc ccagtcaggc cccagccccg tttcttaaga aacttttagg gaccctgcag
960
ctctggagtg ggtggaggga gggagctacg ggcaggagga agaattttgt agagctgcca
1020

```

gcgctctccc aggttcaccc acccaggctt caccagccct gtgcgggctc tgggggcaga  
 1080  
 ggtggcagaa atggtgctgg gcactagtgt tccaggcagc cctgggctaa acaaaagctt  
 1140  
 gaacttgcca cttcagcggg gagatgagag gcagggtgcac tcagctgcac tgcccagagc  
 1200  
 tgtgatgctc tgtacatctt gttttagca cacttgagtt tgtgtattcc attgacatca  
 1260  
 aatgtgacaa ttttactaaa taaagaattt tggagttagt tacccttgaa aaaaaagtcg  
 1320  
 acg  
 1323

<210> 3238

<211> 249

<212> PRT

<213> Homo sapiens

<400> 3238

Xaa	Leu	Gly	Cys	Asp	Leu	Pro	Arg	Arg	Gly	Val	Cys	Thr	Lys	Ala	Leu	15
1				5					10							15
Gly	Ala	Gly	Leu	Arg	Ala	Leu	Trp	Thr	Met	Ala	Pro	Pro	Ala	Ala	Pro	30
			20					25								30
Gly	Arg	Asp	Arg	Val	Gly	Arg	Glu	Asp	Glu	Asp	Arg	Trp	Glu	Val	Arg	45
		35					40									45
Gly	Asp	Arg	Lys	Ala	Arg	Lys	Pro	Leu	Val	Glu	Lys	Lys	Arg	Arg	Ala	60
	50					55					60					60
Arg	Ile	Asn	Glu	Ser	Leu	Gln	Glu	Leu	Arg	Leu	Leu	Leu	Ala	Gly	Ala	80
65					70					75						80
Glu	Val	Gln	Ala	Lys	Leu	Glu	Asn	Ala	Glu	Val	Leu	Glu	Leu	Thr	Val	95
			85						90							95
Arg	Arg	Val	Gln	Gly	Val	Leu	Arg	Gly	Arg	Ala	Arg	Glu	Arg	Glu	Gln	110
			100					105								110
Leu	Gln	Ala	Glu	Ala	Ser	Glu	Arg	Phe	Ala	Ala	Gly	Tyr	Ile	Gln	Cys	125
		115					120					125				125
Met	His	Glu	Val	His	Thr	Phe	Val	Ser	Thr	Cys	Gln	Ala	Ile	Asp	Ala	140
							135					140				140
Thr	Val	Ala	Ala	Glu	Leu	Leu	Asn	His	Leu	Leu	Glu	Ser	Met	Pro	Leu	160
145					150					155						160
Arg	Glu	Gly	Ser	Ser	Phe	Gln	Asp	Leu	Leu	Gly	Asp	Ala	Leu	Ala	Gly	175
			165						170							175
Pro	Pro	Arg	Ala	Pro	Gly	Arg	Ser	Gly	Trp	Pro	Ala	Gly	Gly	Ala	Pro	190
			180					185								190
Gly	Ser	Pro	Ile	Pro	Ser	Pro	Pro	Gly	Pro	Gly	Asp	Asp	Leu	Cys	Ser	205
		195				200					205					205
Asp	Leu	Glu	Glu	Ala	Pro	Glu	Ala	Glu	Leu	Ser	Gln	Ala	Pro	Ala	Glu	220
	210					215					220					220
Gly	Pro	Asp	Leu	Val	Pro	Ala	Ala	Leu	Gly	Ser	Leu	Thr	Thr	Ala	Gln	240
225					230					235						240
Ile	Ala	Arg	Ser	Val	Trp	Arg	Pro	Trp								
					245											

<210> 3239

<211> 432

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3239

```

aaaaccaaag attctcctgg agttttctct aaactgggtg ttctcctgag gagagtgaca
60
agaaacttgg tgagaaataa gctggcagtg attacgcgtc tccttcagaa tctgatcatg
120
ggtttgttcc tccttttctt cgttctgcgg gtccgaagca atgtgctaaa gggtgctatc
180
caggaccgcg taggtctcct ttaccagttt gtgggcgcca ccccgtaac aggcattgctg
240
aacgctgtga atctgtttcc cgtgctgcga gctgtcagcg accaggagag tcaggacggc
300
ctctaccaga agtggcagat gatgctggcc tatgcactgc acgtctccc cttcagcgtt
360
gttgccacca tgattttcag cagtgtgtgc tactggacgc tgggcttaca tcctgaggtt
420
gcccgattgg gt
432

```

&lt;210&gt; 3240

&lt;211&gt; 144

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3240

```

Lys Thr Lys Asp Ser Pro Gly Val Phe Ser Lys Leu Gly Val Leu Leu
1          5          10          15
Arg Arg Val Thr Arg Asn Leu Val Arg Asn Lys Leu Ala Val Ile Thr
20          25          30
Arg Leu Leu Gln Asn Leu Ile Met Gly Leu Phe Leu Leu Phe Phe Val
35          40          45
Leu Arg Val Arg Ser Asn Val Leu Lys Gly Ala Ile Gln Asp Arg Val
50          55          60
Gly Leu Leu Tyr Gln Phe Val Gly Ala Thr Pro Tyr Thr Gly Met Leu
65          70          75          80
Asn Ala Val Asn Leu Phe Pro Val Leu Arg Ala Val Ser Asp Gln Glu
85          90          95
Ser Gln Asp Gly Leu Tyr Gln Lys Trp Gln Met Met Leu Ala Tyr Ala
100         105         110
Leu His Val Leu Pro Phe Ser Val Val Ala Thr Met Ile Phe Ser Ser
115         120         125
Val Cys Tyr Trp Thr Leu Gly Leu His Pro Glu Val Ala Arg Leu Gly
130         135         140

```

&lt;210&gt; 3241

&lt;211&gt; 492

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3241

```

gtggaatttt tttagacaaa gtctcaaaaa acaaacaac aaacaaaagg taagataaat
60

```

acgaaataca aaataagagg caggaagagc ccaaagcatc agaaatgtgc cagttataat  
 120  
 gggccaaaat cccctcttgt gtctccagaa gtatttgaaa aatacgtag gatctgcctc  
 180  
 acagacatgc tcccaggaca ctgcacagca aggaggtacg gcgggcccag ccagccaagg  
 240  
 cagaggagga catcactgcc acagcagggg gcctgactgg cagcaaaagg gacgactccg  
 300  
 gcgaaaagtc agcaggaaac aggacagggg ctggaccaat ggctccctc agccccacac  
 360  
 ccccccagg caggagcggg gcctggcccc gggcaggcgg gtgggagagc tcaactgagt  
 420  
 ggcagcaggg catggcccct gatgctgcag gtaccaggc tgcagctgca gaaacctcag  
 480  
 tgggaaccca gg  
 492

<210> 3242  
 <211> 107  
 <212> PRT  
 <213> Homo sapiens

<400> 3242  
 Met Gly Gln Asn Pro Leu Leu Cys Leu Gln Lys Tyr Leu Lys Asn Thr  
 1 5 10 15  
 Leu Gly Ser Ala Ser Gln Thr Cys Ser Gln Asp Thr Arg Gln Gln Gly  
 20 25 30  
 Gly Thr Ala Gly Pro Ala Ser Gln Gly Arg Gly Gly His His Cys His  
 35 40 45  
 Ser Arg Gly Pro Asp Trp Gln Gln Lys Gly Arg Leu Arg Arg Lys Val  
 50 55 60  
 Ser Arg Lys Gln Asp Arg Gly Trp Thr Asn Gly Leu Pro Gln Pro His  
 65 70 75 80  
 Thr Pro Pro Arg Gln Glu Arg Cys Leu Ala Arg Gly Arg Arg Val Gly  
 85 90 95  
 Glu Leu Thr Glu Trp Ala Ala Gly His Gly Pro  
 100 105

<210> 3243  
 <211> 944  
 <212> DNA  
 <213> Homo sapiens

<400> 3243  
 gatctgcatt ttcaagttag caaagaccgc tatggagggc agccactttt ctgagagaag  
 60  
 tttcccccac tttggtctgg ggcaaggagt acttacggag tgacaaaggg aaaagtctgc  
 120  
 tttgaggcaa aggttaacca gaatctccca atgaaagaag gctgcacaga ggtctctctc  
 180  
 cttcgagttg ggtggtctgt tgatttttcc cgtccacagc ttggtgaaga tgaattctct  
 240  
 tacggtttcg atggacgagg actcaaggca gaaaatggac aatttgagga atttggccag  
 300

acttttgggg agaatgatgt tattggctgc tttgctaatt ttgagactga agaagtagaa  
 360  
 ctttccttct ccaagaatgg agaagaccta ggtgtggcat tctggatcag caaggattcc  
 420  
 ctggcagacc gggcccttct accccatgtc ctctgcaaaa attgtgttgt agaattaaac  
 480  
 ttcggtcaga aggaggagcc cttcttccca ccaccagaag agtttgtgtt cattcatgct  
 540  
 gtgcctgttg aggagcgtgt acgcactgca gtccctccca agaccataga ggaatgtgag  
 600  
 gtgattctga tgggtgggact acccggatct ggaaagaccc agtgggcact gaaatatgca  
 660  
 aaagaaaacc ctgagaaaag atacaatgtc ctgggagctg agactgtgct caatcaaatg  
 720  
 aggatgaagg gtctcgagga gccagagatg gaccccaaaa gccgagacct tttagttag  
 780  
 caagcctccc agtgccttag taagctggtc cagattgctt cccggacaaa gaggaacttt  
 840  
 attcttgatc agtgaatgt gtacaattct ggccaacggc ggaagctatt gctgttcaag  
 900  
 accttctctc ggaaagtggg ggtggtgtgc cctaataagg aaga  
 944

&lt;210&gt; 3244

&lt;211&gt; 314

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3244

Asp	Leu	His	Phe	Gln	Val	Ser	Lys	Asp	Arg	Tyr	Gly	Gly	Gln	Pro	Leu
1				5				10					15		
Phe	Ser	Glu	Lys	Phe	Pro	Thr	Leu	Trp	Ser	Gly	Ala	Arg	Ser	Thr	Tyr
			20					25					30		
Gly	Val	Thr	Lys	Gly	Lys	Val	Cys	Phe	Glu	Ala	Lys	Val	Thr	Gln	Asn
			35				40						45		
Leu	Pro	Met	Lys	Glu	Gly	Cys	Thr	Glu	Val	Ser	Leu	Leu	Arg	Val	Gly
			50			55					60				
Trp	Ser	Val	Asp	Phe	Ser	Arg	Pro	Gln	Leu	Gly	Glu	Asp	Glu	Phe	Ser
65					70				75					80	
Tyr	Gly	Phe	Asp	Gly	Arg	Gly	Leu	Lys	Ala	Glu	Asn	Gly	Gln	Phe	Glu
			85					90						95	
Glu	Phe	Gly	Gln	Thr	Phe	Gly	Glu	Asn	Asp	Val	Ile	Gly	Cys	Phe	Ala
			100					105						110	
Asn	Phe	Glu	Thr	Glu	Glu	Val	Glu	Leu	Ser	Phe	Ser	Lys	Asn	Gly	Glu
			115				120					125			
Asp	Leu	Gly	Val	Ala	Phe	Trp	Ile	Ser	Lys	Asp	Ser	Leu	Ala	Asp	Arg
			130			135					140				
Ala	Leu	Leu	Pro	His	Val	Leu	Cys	Lys	Asn	Cys	Val	Val	Glu	Leu	Asn
145				150					155					160	
Phe	Gly	Gln	Lys	Glu	Glu	Pro	Phe	Phe	Pro	Pro	Pro	Glu	Glu	Phe	Val
			165					170						175	
Phe	Ile	His	Ala	Val	Pro	Val	Glu	Glu	Arg	Val	Arg	Thr	Ala	Val	Pro
			180					185					190		
Pro	Lys	Thr	Ile	Glu	Glu	Cys	Glu	Val	Ile	Leu	Met	Val	Gly	Leu	Pro



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<210> 3245
<211> 980
<212> DNA
<213> Homo sapiens
```

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<400> 3245
tggtatgagg gttctccctc caggccggga ctgacaccac tggccaggaa gtggctgaag
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ctcagctgga tgaggatggg gatttggacg tggtgagaag accacgagcc gcctctgatt
120
ccaaccagc agggcctctg agagacaagg tacatcccat gattctagca caggaagaag
180
acgacgtcct gggagaggaa gcacaaggca gcccgcacga tatcatcaga ataggtgtgg
240
cggggcgccc tgctcctggc agactacatc ctgttccgac aggacctctt ccgaggatgt
300
acagcgctgg agctcggggc cggcacgggg ctcgctagca tcatcgcagc caccatggca
360
cggaccgttt attgtacaga tgtcgggtgca gatcttttgt ccatgtgcca gcgaaacatt
420
gccctcaaca gccacctggc tgccactgga ggtggtatag ttaggggtcaa agaactggac
480
tggttgaagg acgacctctg cacagatccc aagggtccct tcagttggtc acaagaggaa
540
atttctgacc tgtacgatca caccaccatc ctgtttgcag ccgaagtgtt ttacgacgac
600
gacttgactg atgctgtgtt taaaacgctc tcccgactcg cccacagatt gaaaaatgcc
660
tgcacagcca tactgtcggg ggagaagagg ctcaacttca cactgagaca cttggacgtc
720
acatgtgaag cctacgatca cttccgctcc tgcttgcacg cgctggagca gctcacagat
780
ggcaagctgc gcttcgtggg ggagcccgtg gaggcctcct tcccacagct cctgggttac
840
gagcgccctc agcagctgga gctctggaag atcatcgcag aaccagtaac atgaccatc
900
gcctccacca ggcgcggcgt ctcgactgtt cttagagtgt atttctagta aaatcagaag
960

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ctcaccacaaag caaaaaaaaaa  
980

<210> 3246

<211> 219

<212> PRT

<213> Homo sapiens

<400> 3246

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Val Trp Arg Gly Ala Leu Leu Leu Ala Asp Tyr Ile Leu Phe Arg Gln
 1           5           10           15
Asp Leu Phe Arg Gly Cys Thr Ala Leu Glu Leu Gly Ala Gly Thr Gly
      20           25           30
Leu Ala Ser Ile Ile Ala Ala Thr Met Ala Arg Thr Val Tyr Cys Thr
      35           40           45
Asp Val Gly Ala Asp Leu Leu Ser Met Cys Gln Arg Asn Ile Ala Leu
      50           55           60
Asn Ser His Leu Ala Ala Thr Gly Gly Gly Ile Val Arg Val Lys Glu
      65           70           75           80
Leu Asp Trp Leu Lys Asp Asp Leu Cys Thr Asp Pro Lys Val Pro Phe
      85           90           95
Ser Trp Ser Gln Glu Glu Ile Ser Asp Leu Tyr Asp His Thr Thr Ile
      100          105          110
Leu Phe Ala Ala Glu Val Phe Tyr Asp Asp Asp Leu Thr Asp Ala Val
      115          120          125
Phe Lys Thr Leu Ser Arg Leu Ala His Arg Leu Lys Asn Ala Cys Thr
      130          135          140
Ala Ile Leu Ser Val Glu Lys Arg Leu Asn Phe Thr Leu Arg His Leu
      145          150          155          160
Asp Val Thr Cys Glu Ala Tyr Asp His Phe Arg Ser Cys Leu His Ala
      165          170          175
Leu Glu Gln Leu Thr Asp Gly Lys Leu Arg Phe Val Val Glu Pro Val
      180          185          190
Glu Ala Ser Phe Pro Gln Leu Leu Val Tyr Glu Arg Leu Gln Gln Leu
      195          200          205
Glu Leu Trp Lys Ile Ile Ala Glu Pro Val Thr
      210          215

```

<210> 3247

<211> 977

<212> DNA

<213> Homo sapiens

<400> 3247

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ntctagaacc cagccctgtg gaagtatgtg cggcccaggg gctgtgtgct ggagtgggta
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cgcaacatcg tggccaaccg cctggcctcg gatggggcca cctgggcaga catcttcaag
120
aggttcaaca gcggcacgta taacaaccag tggatgatcg tggactacaa ggcgttcac
180
ccgggtgggc ccagccccgg gagccgggtg cttaccatcc tggagcagat ccccgcatg
240
gtgggtgggtg ctgacaagac ctcggagctc taccagaaga cctactgggc cagctacaac
300

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ataccgtcct tgcgactgt gttcaatgcc agtgggctgc aggccctagt ggcccagtat  
 360  
 ggggactggg tttcttatga cgggagcccc cgggccaga tcttcggcg gaaccagtca  
 420  
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&lt;210&gt; 3251

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 Leu Pro Ala Arg Ala Ser Gly Gln Asn Pro Gln Pro Leu Gln  
 245 250

<210> 3253  
 <211> 686  
 <212> DNA  
 <213> Homo sapiens

<400> 3253  
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 120  
 gtaaaatggc atcaagggtc cccaccgggt caagatgggg accttgacta tatggcaatg  
 180  
 aagacagggg caccctggca gtagcaggta gcctttggcc atctctgcag caggctgggtg  
 240

ttggtgatcc acgaggcacg gaaagtcagc actctggagg acctggttgg ggtcaccctg  
 300  
 ggccaggtgc agatcggtgg aagctggata tgtgaaatgg caggtgctgg tgaacttgcg  
 360  
 ctgctctcc ctgctggcct catgttcctg tgatgggaag aagccgggga gtcccaggtc  
 420  
 ttggcagtc atgtggggtc ttttgaaagc agggtagcca tctgttagct tggggttggg  
 480  
 gttagggatg ggcctgtaaa actctttgtc ccggagttga gcatcgagct ttgctgctc  
 540  
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 600  
 gctttggtat atgtctaaat ccacagggtc ctgtcccggg tatttcacac ctgccatggc  
 660  
 aaacgacaga cagcttctct cctagg  
 686

&lt;210&gt; 3254

&lt;211&gt; 180

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3254

Met	Ala	Gly	Val	Lys	Tyr	Pro	Gly	Gln	Asp	Pro	Val	Asp	Leu	Asp	Ile
1				5					10					15	
Tyr	Gln	Ser	Ser	His	Met	Val	Asp	Tyr	Gln	Pro	Tyr	Arg	Lys	His	Lys
		20					25						30		
Tyr	Ser	Arg	Val	Thr	Pro	Gln	Glu	Gln	Ala	Lys	Leu	Asp	Ala	Gln	Leu
		35				40						45			
Arg	Asp	Lys	Glu	Phe	Tyr	Arg	Pro	Ile	Pro	Asn	Pro	Asn	Pro	Lys	Leu
	50				55					60					
Thr	Asp	Gly	Tyr	Pro	Ala	Phe	Lys	Arg	Pro	His	Met	Thr	Ala	Lys	Asp
65				70					75					80	
Leu	Gly	Leu	Pro	Gly	Phe	Phe	Pro	Ser	Gln	Glu	His	Glu	Ala	Thr	Arg
			85					90						95	
Glu	Asp	Glu	Arg	Lys	Phe	Thr	Ser	Thr	Cys	His	Phe	Thr	Tyr	Pro	Ala
		100					105						110		
Ser	His	Asp	Leu	His	Leu	Ala	Gln	Gly	Asp	Pro	Asn	Gln	Val	Leu	Gln
		115					120					125			
Ser	Ala	Asp	Phe	Pro	Cys	Leu	Val	Asp	Pro	Lys	His	Gln	Pro	Ala	Ala
	130				135						140				
Glu	Met	Ala	Lys	Gly	Tyr	Leu	Leu	Leu	Pro	Gly	Cys	Pro	Cys	Leu	His
145				150					155					160	
Cys	His	Ile	Val	Lys	Val	Pro	Ile	Leu	Asn	Arg	Trp	Gly	Pro	Leu	Met
			165				170							175	
Pro	Phe	Tyr	Gln												
			180												

&lt;210&gt; 3255

&lt;211&gt; 724

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3255

nntgtacatg cgtgtgcgtc tgtgattgtg tgggtgtgtg atagtgtagg ggagccagga  
 60  
 gcgagaggag aggacggcga tcgtagggga cacctgagag tcagaggccc gagggggctg  
 120  
 ggactcatgt cgaggtcggg gaaggatgta aaacccggac ggacatcact gtaggccgca  
 180  
 cctgctgaga ggccagagct gcctccttga gagtgaagtt gtttacagac aagagaagag  
 240  
 atcttggcgg acacatcaca gctagccgcg aatcccgaag ggtcagcaga gcctagaaag  
 300  
 gaatatgagg ggggtcggaa tgaggcaggc gaaaggcacg gacgtgggag ggcacggcta  
 360  
 cccaacgggg acacctacga agggagctac gaattcggta aaagacatgg ccaggggatc  
 420  
 tacaaattta aaaatggtgc tcgatataac ggagaatatg ttagaaataa aaagcacggg  
 480  
 caaggcactt ttatatatcc agatggatcc agatatgaag gagagtgggc aaatgacctg  
 540  
 cggcacggcc atggcgtata ctactacatc aataatgaca cctacactgg agagtggttt  
 600  
 gctcatcaaa ggcattggga aggcacctat ttatacgag agacgggcag taagtatgtt  
 660  
 ggcacctggg tgaacggaca gcaggagggc acggccgagc tcattcacct gaaccacagg  
 720  
 tacc  
 724

&lt;210&gt; 3256

&lt;211&gt; 169

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3256

Ser	Cys	Leu	Gln	Thr	Arg	Glu	Glu	Ile	Leu	Ala	Asp	Thr	Ser	Gln	Leu
1				5					10					15	
Ala	Ala	Asn	Pro	Glu	Gly	Ser	Ala	Glu	Pro	Arg	Lys	Glu	Tyr	Glu	Gly
		20						25				30			
Gly	Arg	Asn	Glu	Ala	Gly	Glu	Arg	His	Gly	Arg	Gly	Arg	Ala	Arg	Leu
		35					40				45				
Pro	Asn	Gly	Asp	Thr	Tyr	Glu	Gly	Ser	Tyr	Glu	Phe	Gly	Lys	Arg	His
	50				55				60						
Gly	Gln	Gly	Ile	Tyr	Lys	Phe	Lys	Asn	Gly	Ala	Arg	Tyr	Ile	Gly	Glu
65			70						75				80		
Tyr	Val	Arg	Asn	Lys	Lys	His	Gly	Gln	Gly	Thr	Phe	Ile	Tyr	Pro	Asp
		85					90					95			
Gly	Ser	Arg	Tyr	Glu	Gly	Glu	Trp	Ala	Asn	Asp	Leu	Arg	His	Gly	His
		100					105					110			
Gly	Val	Tyr	Tyr	Tyr	Ile	Asn	Asn	Asp	Thr	Tyr	Thr	Gly	Glu	Trp	Phe
	115				120							125			
Ala	His	Gln	Arg	His	Gly	Gln	Gly	Thr	Tyr	Leu	Tyr	Ala	Glu	Thr	Gly
	130				135					140					
Ser	Lys	Tyr	Val	Gly	Thr	Trp	Val	Asn	Gly	Gln	Gln	Glu	Gly	Thr	Ala
145			150					155				160			
Glu	Leu	Ile	His	Leu	Asn	His	Arg	Tyr							

165

&lt;210&gt; 3257

&lt;211&gt; 368

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3257

nnccccggggt acatagactc cccacactac agccggcagg gcatgtcccc caccttctcc  
60  
cgctcacctc accactacta ccgctctggt gatttgtcta cagcaaccaa gagcgaaaca  
120  
agtgaagaca tcagccagac ctccaagtac agtcccatct actcgccaga cccctactat  
180  
gcttcggagt ctgagtactg gacctaccat ggggtcccca aagtgtcccg agccagaagg  
240  
ttctcgtctg gaggagagga ggatgatttt gaccgcagca tgcacaagct ccaaagtgga  
300  
attggccggc tgattctgaa ggaagaaatg aaggcccggt cgagctccta tgcagatccc  
360  
tggcgcgc  
368

&lt;210&gt; 3258

&lt;211&gt; 122

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3258

Xaa	Pro	Gly	Tyr	Ile	Asp	Ser	Pro	Thr	Tyr	Ser	Arg	Gln	Gly	Met	Ser
1				5					10					15	
Pro	Thr	Phe	Ser	Arg	Ser	Pro	His	His	Tyr	Tyr	Arg	Ser	Gly	Asp	Leu
			20					25					30		
Ser	Thr	Ala	Thr	Lys	Ser	Glu	Thr	Ser	Glu	Asp	Ile	Ser	Gln	Thr	Ser
		35					40					45			
Lys	Tyr	Ser	Pro	Ile	Tyr	Ser	Pro	Asp	Pro	Tyr	Tyr	Ala	Ser	Glu	Ser
	50					55					60				
Glu	Tyr	Trp	Thr	Tyr	His	Gly	Ser	Pro	Lys	Val	Pro	Arg	Ala	Arg	Arg
65					70					75				80	
Phe	Ser	Ser	Gly	Gly	Glu	Glu	Asp	Asp	Phe	Asp	Arg	Ser	Met	His	Lys
			85						90				95		
Leu	Gln	Ser	Gly	Ile	Gly	Arg	Leu	Ile	Leu	Lys	Glu	Glu	Met	Lys	Ala
			100					105					110		
Arg	Ser	Ser	Ser	Tyr	Ala	Asp	Pro	Trp	Arg						
			115					120							

&lt;210&gt; 3259

&lt;211&gt; 747

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3259

acgcgtgaag ggcgcaccct ctgctgcagc actggccacc ccggacacgc tgcagggcca  
60

2458

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 120  
 caccattgaa cccggagcgc tgcggcgggg caacatgagc tccctgggct ttacgagcaa  
 180  
 ggagcagcgg aacctggggc ttctcgtgca cctcatgacc agcaacccca aaatcctgta  
 240  
 cgcgcctgcg ggctctgagg tcgaccgcgt catcctcaag gccaacgaga cttttgcttt  
 300  
 tgtgggcaac gtgactcact atgccaggt ctgggtcaac atctcggcgg agatccgcag  
 360  
 cttcctggag cagggcaggg tcgagcaaca cctgcgctgg ctgcagcagt atgtagcaga  
 420  
 gctgcggtg caccctgagg cactgaacct gtcactggat gagctgccgc cggccctgag  
 480  
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 540  
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 600  
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 660  
 cactgttttt gccagtgtga tcttcagac ccggaaggac ggctcgtccc gcctcacgtg  
 720  
 cactacaaga tccgccagaa ctccagc  
 747

&lt;210&gt; 3260

&lt;211&gt; 197

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3260

Met	Ser	Ser	Leu	Gly	Phe	Thr	Ser	Lys	Glu	Gln	Arg	Asn	Leu	Gly	Leu
1				5					10					15	
Leu	Val	His	Leu	Met	Thr	Ser	Asn	Pro	Lys	Ile	Leu	Tyr	Ala	Pro	Ala
			20					25					30		
Gly	Ser	Glu	Val	Asp	Arg	Val	Ile	Leu	Lys	Ala	Asn	Glu	Thr	Phe	Ala
		35					40					45			
Phe	Val	Gly	Asn	Val	Thr	His	Tyr	Ala	Gln	Val	Trp	Leu	Asn	Ile	Ser
	50					55					60				
Ala	Glu	Ile	Arg	Ser	Phe	Leu	Glu	Gln	Gly	Arg	Leu	Gln	Gln	His	Leu
65					70				75					80	
Arg	Trp	Leu	Gln	Gln	Tyr	Val	Ala	Glu	Leu	Arg	Leu	His	Pro	Glu	Ala
			85					90					95		
Leu	Asn	Leu	Ser	Leu	Asp	Glu	Leu	Pro	Pro	Ala	Leu	Arg	Gln	Asp	Asn
		100						105					110		
Phe	Ser	Leu	Pro	Ser	Gly	Met	Ala	Leu	Leu	Gln	Gln	Leu	Asp	Thr	Ile
		115				120						125			
Asp	Asn	Ala	Ala	Cys	Gly	Trp	Ile	Gln	Phe	Met	Ser	Lys	Val	Ser	Val
	130					135					140				
Asp	Ile	Phe	Lys	Gly	Phe	Pro	Asp	Glu	Glu	Ser	Ile	Val	Asn	Tyr	Thr
145					150					155				160	
Leu	Asn	Gln	Ala	Tyr	Gln	Asp	Asn	Val	Thr	Val	Phe	Ala	Ser	Val	Ile
			165					170						175	
Phe	Gln	Thr	Arg	Lys	Asp	Gly	Ser	Ser	Arg	Leu	Thr	Cys	Thr	Thr	Arg

180  
Ser Ala Arg Thr Pro  
195

185

190

<210> 3261  
<211> 1323  
<212> DNA  
<213> Homo sapiens

<400> 3261  
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gcacctcatt gctttcctca cctgccatct cacacgtggc tgccctgtgt tgccctgtg  
120  
tgctgtgcca attgtgtttt ttgtctctgt gtacattttg gttttatttg gggttgctgt  
180  
tgatgatttc ctttgttccg gtgttctgtc tcccctcgct ggctgtgtgg gggctgcctg  
240  
gcccgctgct tgccgcctcc atagatcccc gttgcgcagc catctgtcat ggacgacatt  
300  
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420  
tcgcccccca tggaggctcc tgcccagcc tcaaaccctt ctggccggaa gaagccagag  
480  
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660  
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720  
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780  
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840  
cccgcccatg gagaaagagc acgcccggcc cgcctctgtg ctcacctctg cctggctcag  
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960  
tctctggaag agcagggtgt gctgcactca tgggcctggc ctactcctt ggacttgtca  
1020  
ccttgtgaca tttggcttac cagcatttga gaaggctctg ctgggtctcc atggtggggg  
1080  
tctctcacct tcttgacct ctctccatca ttcagctgcc agcccaggct tcacacccaa  
1140  
gctggctcag cagccgagcc tggcaccgag ggtccctgca ggctccctgg gcagggagag  
1200  
ggccaaggac aattgggagg gcagcaggca gcccgcagat ggtggccatg tggcacgctg  
1260  
ctgagacgac actaccaata aaccaaactg ccacgcacaa aaaaaaaaaa aaaaaaaaaa  
1320



aaa  
1323

<210> 3262  
<211> 81  
<212> PRT  
<213> Homo sapiens

<400> 3262  
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Arg Thr Asp Leu Lys Gly Asp Asp Leu Glu Glu Gly Val Thr Ser Glu  
20 25 30  
Glu Phe Asp Lys Phe Leu Glu Glu Arg Ala Lys Ala Ala Glu Met Val  
35 40 45  
Pro Asp Leu Pro Ser Pro Pro Met Glu Ala Pro Ala Pro Ala Ser Asn  
50 55 60  
Pro Ser Gly Arg Lys Lys Pro Glu Arg Ser Glu Asp Ala Leu Phe Ala  
65 70 75 80  
Leu

<210> 3263  
<211> 1128  
<212> DNA  
<213> Homo sapiens

<400> 3263  
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60  
cggggacgca agggccgggg ccgggggtccc cgtcctcct ctgactccga gcccagggcc  
120  
gagctggaga gagaggccaa gaaatcagcg aagaagccgc agtcctcaag cacagagccc  
180  
gccaggaaac ctggccagaa ggagaagaga gtgcggcccg aggagaagca acaagccaag  
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360  
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420  
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480  
aagaagattc gccgttaca agcgaacaag gacgtaatgg agaaggcagc agaagtctat  
540  
accgggtca agtcgcggtt cctcggtcca aagatcgagg cgggtgcagaa agtgaacaag  
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660  
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720  
ggcgaggcca catcacagaa gggggagagc gcagaggaca aggagcacga ggagggtcgg  
780

gactcggagg aggggccaag gtgtggctcc tctgaagacc tgcacgacag cgtacgggag  
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 960  
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<210> 3264

<211> 308

<212> PRT

<213> Homo sapiens

<400> 3264

Ser	Arg	Tyr	Arg	Arg	Ser	Ser	Gly	Asp	Glu	Leu	Arg	Glu	Asp	Asp	Glu
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Pro	Val	Lys	Lys	Arg	Gly	Arg	Lys	Gly	Arg	Gly	Arg	Gly	Pro	Pro	Ser
			20					25					30		
Ser	Ser	Asp	Ser	Glu	Pro	Glu	Ala	Glu	Leu	Glu	Arg	Glu	Ala	Lys	Lys
		35					40					45			
Ser	Ala	Lys	Lys	Pro	Gln	Ser	Ser	Ser	Thr	Glu	Pro	Ala	Arg	Lys	Pro
	50				55					60					
Gly	Gln	Lys	Glu	Lys	Arg	Val	Arg	Pro	Glu	Glu	Lys	Gln	Gln	Ala	Lys
65					70				75						80
Pro	Val	Lys	Val	Glu	Arg	Thr	Arg	Lys	Arg	Ser	Glu	Gly	Phe	Ser	Met
			85						90					95	
Asp	Arg	Lys	Val	Glu	Lys	Lys	Lys	Glu	Pro	Ser	Val	Glu	Glu	Lys	Leu
		100						105					110		
Gln	Lys	Leu	His	Ser	Glu	Ile	Lys	Phe	Ala	Leu	Lys	Val	Asp	Ser	Pro
	115					120						125			
Asp	Val	Lys	Gly	Cys	Leu	Asn	Ala	Leu	Glu	Glu	Leu	Gly	Thr	Leu	Gln
	130				135						140				
Val	Thr	Ser	Gln	Ile	Leu	Gln	Lys	Asn	Thr	Asp	Val	Val	Ala	Thr	Leu
145					150					155					160
Lys	Lys	Ile	Arg	Arg	Tyr	Lys	Ala	Asn	Lys	Asp	Val	Met	Glu	Lys	Ala
			165					170						175	
Ala	Glu	Val	Tyr	Thr	Arg	Leu	Lys	Ser	Arg	Val	Leu	Gly	Pro	Lys	Ile
		180						185					190		
Glu	Ala	Val	Gln	Lys	Val	Asn	Lys	Ala	Gly	Met	Glu	Lys	Glu	Lys	Ala
	195					200						205			
Glu	Glu	Lys	Leu	Ala	Gly	Glu	Glu	Leu	Ala	Gly	Glu	Glu	Ala	Pro	Gln
	210				215						220				
Glu	Lys	Ala	Glu	Asp	Lys	Pro	Ser	Thr	Asp	Leu	Ser	Ala	Pro	Val	Asn
225					230					235					240
Gly	Glu	Ala	Thr	Ser	Gln	Lys	Gly	Glu	Ser	Ala	Glu	Asp	Lys	Glu	His
			245					250						255	
Glu	Glu	Gly	Arg	Asp	Ser	Glu	Glu	Gly	Pro	Arg	Cys	Gly	Ser	Ser	Glu
		260						265					270		
Asp	Leu	His	Asp	Ser	Val	Arg	Glu	Gly	Pro	Asp	Leu	Asp	Arg	Pro	Gly

275                      280                      285  
 Ser Asp Arg Gln Glu Arg Glu Arg Ala Arg Gly Asp Ser Glu Ala Leu  
 290                      295                      300  
 Asp Glu Glu Ser  
 305

<210> 3265  
 <211> 524  
 <212> DNA  
 <213> Homo sapiens

<400> 3265  
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 60  
 ctttttcgtg gttttcaaaa tgtttccatt gagggcgat tacttttata atcaacaaaa  
 120  
 gagaaagtat aacttcattt tagaaattct cacctaaggc atttgaaaaa taatccaaaa  
 180  
 ggtacattat tggtgatttt tcttccttct agaaaggatc ttgttcgagt agaagccaca  
 240  
 gtcattgaaa agacagaatc atggccaaga atcattatga gattcaggaa aaggaaaaac  
 300  
 ttcaagaaga aaagaagtaa gttagagaaa gtaccgctgg gcctgttgc acggtgctgg  
 360  
 ttgccaggc gcatgcggac ggagggtgtg gggcacgtgg gtctcgggac aggaagccca  
 420  
 ggcaggtctc aacctggctg cactgcccc cttgccacc tcactctaga gggagcacc  
 480  
 agagggtcca gcctcgtcc ccttctctc cacgtccac gcgt  
 524

<210> 3266  
 <211> 82  
 <212> PRT  
 <213> Homo sapiens

<400> 3266  
 Met Arg Phe Arg Lys Arg Lys Asn Phe Lys Lys Lys Arg Ser Lys Leu  
 1                      5                      10                      15  
 Glu Lys Val Pro Leu Gly Pro Val Ala Arg Cys Trp Leu Pro Arg Arg  
 20                      25                      30  
 Met Arg Thr Glu Gly Val Gly His Val Gly Leu Gly Thr Gly Ser Pro  
 35                      40                      45  
 Gly Arg Ser Gln Pro Gly Cys His Cys Pro Leu Ala Thr Leu Ile Leu  
 50                      55                      60  
 Glu Gly Ala Pro Arg Gly Ser Ser Leu Ala Pro Leu Leu Leu His Ala  
 65                      70                      75                      80  
 Pro Arg

<210> 3267  
 <211> 393  
 <212> DNA  
 <213> Homo sapiens

&lt;400&gt; 3267

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120  
cattgtggga agtttcaaga tgcttggag ccattgctca gctggttggc agataccgag  
180  
gagctcatag ccaatcagaa acctccatct gctgagtata aagtggtgaa agcacagatc  
240  
caagaacaga agttgctcca gcggctccta gatgatcgaa aggccacagt agacatgctt  
300  
caagcagaag gaggcagaat agcccagtca gcagagctgg ctgatagaga gaaaatcact  
360  
ggacagctgg agagtcttga aagtagatgg act  
393

&lt;210&gt; 3268

&lt;211&gt; 131

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3268

Val	Glu	Tyr	Ala	Cys	Arg	Val	Gln	Gly	Leu	Glu	His	Asp	Met	Glu	Glu
1				5				10					15		
Ile	Asn	Ala	Arg	Trp	Asn	Thr	Leu	Asn	Lys	Lys	Val	Ala	Gln	Arg	Ile
		20					25					30			
Ala	Gln	Leu	Gln	Glu	Ala	Leu	Leu	His	Cys	Gly	Lys	Phe	Gln	Asp	Ala
		35				40					45				
Leu	Glu	Pro	Leu	Leu	Ser	Trp	Leu	Ala	Asp	Thr	Glu	Glu	Leu	Ile	Ala
	50				55				60						
Asn	Gln	Lys	Pro	Pro	Ser	Ala	Glu	Tyr	Lys	Val	Val	Lys	Ala	Gln	Ile
65				70				75						80	
Gln	Glu	Gln	Lys	Leu	Gln	Arg	Leu	Leu	Asp	Asp	Arg	Lys	Ala	Thr	
			85				90					95			
Val	Asp	Met	Leu	Gln	Ala	Glu	Gly	Gly	Arg	Ile	Ala	Gln	Ser	Ala	Glu
			100				105					110			
Leu	Ala	Asp	Arg	Glu	Lys	Ile	Thr	Gly	Gln	Leu	Glu	Ser	Leu	Glu	Ser
		115					120					125			
Arg	Trp	Thr													
		130													

&lt;210&gt; 3269

&lt;211&gt; 1423

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3269

ctgtatcaaa aataatagta actttttgaa tatacacaat ttatctagaa tctattttcc  
60  
tttgaagctg taactttatg agcgattatt tactaccttt gagaaatgtg ttttagtata  
120  
aaatatagga tgttgaagcg aaaaaaatatc tgggtagcaa gtgagggtgta ctcaaaaata  
180

agcaaaagtc acgtgggtct gattttatac cctcgctgga aagcttggtc tcagacacac  
 240  
 tgttactgca agtgtgtgtg aggggggaaac tctcacacac tttgcagttg aggacagggc  
 300  
 tagactttga ggtggaccct ggctcccagg gctgtgtact cccagcccgt gtttctcttt  
 360  
 tgctcagact gaacaagtgg aacgaaatta cattaaagaa aagaaggcag cagtgaagaa  
 420  
 atttgaagac aagaaggttg agctgaaaga gaacctgatt gctgagctag aagaaaagaa  
 480  
 gaaaatgatt gaaaacgaaa tgctgacaat ggaactgaat ggagattcta tggaggtgaa  
 540  
 acctatcatg accagaaagt tgcggaggcg accaaatgat cccgtcccca tcccagacaa  
 600  
 gaggaggaaa cctgctccag cccagctaaa ctatttggtta acagatgaac agatcatgga  
 660  
 ggatctgaga acattaaata agcttaagtc acccaagaga ccagcatctc catcctctcc  
 720  
 tgagcacttg cctgcaacac ccgcggaatc tccagcacag agatttgagg cgcggataga  
 780  
 agatggcaaa ctgtattatg acaaaagatg gtaccacaag agccaggcca tctatctgga  
 840  
 gtcaaaggac aaccagaaac tgagctgcgt gatcagttct gtaggagcca atgagatctg  
 900  
 ggtgaggaag acaagtgaca gcaccaagat gaggatctac ctgggtcagc ttcagcgagg  
 960  
 gctcttcgtg atccgcccgc gctcagctgc ttgactttct acagtgtctt tctcttgacc  
 1020  
 ctttttctgg agtgggtttt atttttgttt tgtttcgttt tctccttaat agaaaaatgt  
 1080  
 taacttactg ggaatagcta ctcagccttg gaaatggaga gcactgcagt gaattcttta  
 1140  
 gggcactttt gtggccggat gcttccaact ttgtcagctt tttctgcctc aacttcttcc  
 1200  
 agacatcagt caccatgaga ctgttttact ttcaggcgta ttgggggggtt tgatttactt  
 1260  
 tctttttatt tctttatttt ttgcttatac ttgtttttga aaacctcttc tgagtttgaa  
 1320  
 gggacagcta tttttattga ttatctttta gtctctctac catggagaag agcaggaagg  
 1380  
 gatacactct ccagtgcatt ttcattgttt gaatcggatt agt  
 1423

&lt;210&gt; 3270

&lt;211&gt; 169

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3270

Met Ile Glu Asn Glu Met Leu Thr Met Glu Leu Asn Gly Asp Ser Met  
 1 5 10 15  
 Glu Val Lys Pro Ile Met Thr Arg Lys Leu Arg Arg Arg Pro Asn Asp  
 20 25 30  
 Pro Val Pro Ile Pro Asp Lys Arg Arg Lys Pro Ala Pro Ala Gln Leu

```

      35          40          45
Asn Tyr Leu Leu Thr Asp Glu Gln Ile Met Glu Asp Leu Arg Thr Leu
  50          55          60
Asn Lys Leu Lys Ser Pro Lys Arg Pro Ala Ser Pro Ser Ser Pro Glu
  65          70          75          80
His Leu Pro Ala Thr Pro Ala Glu Ser Pro Ala Gln Arg Phe Glu Ala
      85          90          95
Arg Ile Glu Asp Gly Lys Leu Tyr Tyr Asp Lys Arg Trp Tyr His Lys
      100          105          110
Ser Gln Ala Ile Tyr Leu Glu Ser Lys Asp Asn Gln Lys Leu Ser Cys
      115          120          125
Val Ile Ser Ser Val Gly Ala Asn Glu Ile Trp Val Arg Lys Thr Ser
      130          135          140
Asp Ser Thr Lys Met Arg Ile Tyr Leu Gly Gln Leu Gln Arg Gly Leu
  145          150          155          160
Phe Val Ile Arg Arg Arg Ser Ala Ala
      165

```

<210> 3271  
 <211> 464  
 <212> DNA  
 <213> Homo sapiens

```

<400> 3271
tcatgagcag ggcccaattc tggettctct gtggctcgcca tccatgtgct gggcgctcact
  60
gaaggcactg gggatacagc cgagcacaag atggacagag atccctggcc cctcggagca
  120
ggcagtctgt ggctctggcc cctccagttc cttgtcacca ggagataggc aatgcagctg
  180
atgagaaggg ccccggcagc aagagatcca atgatggtgg ccgccaggat cccagcgttg
  240
gtgggcaggt gtgtactggg cagctcctta ttcttttcag ctacctggac ctcagtcttg
  300
gccttcatag tccattcaga gttgatggta atggctactt ggtagggtgcc actgtctgta
  360
ggctggggcg ggcgcagcag catggaacca ttggggaagc ccacgatgtc tcgctgtccc
  420
atggcactgc catccctctg aggccgttgt atccccaggg atgt
  464

```

<210> 3272  
 <211> 140  
 <212> PRT  
 <213> Homo sapiens

```

<400> 3272
Met Gly Gln Arg Asp Ile Val Gly Phe Pro Asn Gly Ser Met Leu Leu
  1          5          10          15
Arg Arg Ala Gln Pro Thr Asp Ser Gly Thr Tyr Gln Val Ala Ile Thr
      20          25          30
Ile Asn Ser Glu Trp Thr Met Lys Ala Lys Thr Glu Val Gln Val Ala
      35          40          45
Glu Lys Asn Lys Glu Leu Pro Ser Thr His Leu Pro Thr Asn Ala Gly

```

```

      50              55              60
Ile Leu Ala Ala Thr Ile Ile Gly Ser Leu Ala Ala Gly Ala Leu Leu
65              70              75              80
Ile Ser Cys Ile Ala Tyr Leu Leu Val Thr Arg Asn Trp Arg Gly Gln
      85              90              95
Ser His Arg Leu Pro Ala Pro Arg Gly Gln Gly Ser Leu Ser Ile Leu
      100              105              110
Cys Ser Ala Val Ser Pro Val Pro Ser Val Thr Pro Ser Thr Trp Met
      115              120              125
Ala Thr Thr Glu Lys Pro Glu Leu Gly Pro Ala His
      130              135              140

```

&lt;210&gt; 3273

&lt;211&gt; 387

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3273

```

ngcgcgccag ggatggaaaa ctttattctg tatgaggaga tcggaagagg aagcaagact
60
gttgtctata aagggcgacg gaagggaaca atcaattttg tagccattct ttgtactgat
120
aagtgcagaa ggcctgaaat aaccaactgg gtccgtctca cccgtgaaat aaaacacaag
180
aatattgtaa cttttcatga atggtatgaa acaagcaacc acctctggct agtgggtggaa
240
ctccgcacag gtggttcctt aaaaacagtt attgctcaag atgaaaacct cccagaagat
300
gttgtgagag aatttggaat tgacctgatt agtggattac atcatcttca taaacttggc
360
attctctttg tgacatttct cctagga
387

```

&lt;210&gt; 3274

&lt;211&gt; 129

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3274

```

Xaa Ala Pro Gly Met Glu Asn Phe Ile Leu Tyr Glu Glu Ile Gly Arg
1      5      10      15
Gly Ser Lys Thr Val Val Tyr Lys Gly Arg Arg Lys Gly Thr Ile Asn
      20      25      30
Phe Val Ala Ile Leu Cys Thr Asp Lys Cys Arg Arg Pro Glu Ile Thr
      35      40      45
Asn Trp Val Arg Leu Thr Arg Glu Ile Lys His Lys Asn Ile Val Thr
      50      55      60
Phe His Glu Trp Tyr Glu Thr Ser Asn His Leu Trp Leu Val Val Glu
65      70      75      80
Leu Arg Thr Gly Gly Ser Leu Lys Thr Val Ile Ala Gln Asp Glu Asn
      85      90      95
Leu Pro Glu Asp Val Val Arg Glu Phe Gly Ile Asp Leu Ile Ser Gly
      100      105      110
Leu His His Leu His Lys Leu Gly Ile Leu Phe Val Thr Phe Leu Leu

```

115 120 125

Gly

<210> 3275  
<211> 1266  
<212> DNA  
<213> Homo sapiens

<400> 3275  
ttttttttaa tcagttaaga ttcttggtga cacaaattgt tttacatcaa ctgttggtat  
60  
agaacacatg aaaggaatac atggggaaga aataaagtag aaccaagag ttcttttaag  
120  
ttttctttta tagagacatg aataacagat acactgaagt ataaacaaaa attggcctga  
180  
agcgtccggt ggccggtcta gttaggagct atggctaaac atcatcctga tttgatcttt  
240  
tgccgcaagc aggctggtgt tgccatcgga agactgtgtg aaaaatgtga tggcaagtgt  
300  
gtgatttgtg actcctatgt gcgtccctgc actctggtgc gcatatgtga tgagtgtaac  
360  
tatggatctt accaggggag ctgtgtgatc tgtggaggac ctgggggtctc tgatgcctat  
420  
tattgtaagg agtgcaccat ccaggagaag gacagagatg gctgccccaa gattgtcaat  
480  
ctggggagct ctaagacaga cctcttctat gaacgcaaaa aatacggctt caagaagagg  
540  
tgattggtgg gtggccctt cctcccccca acatcagtct gctgcagctg ccagaaaaca  
600  
tgcctactac taccagcaga aaggagagc agcccagagc atcaccagga gtgcctgcta  
660  
gtgtactggc agcttgccac cccctcctct cccttcaccc agacacgtgg tagggatgga  
720  
aaaggattct tcacagagca ctctggcaca ccatatcgga gaaaaattga tagattagtt  
780  
aatgggtttt cttgaattcg agaagcatag atctgttctc catattggta tgttctccct  
840  
caaccaagat cttctaaaaa gaaataatat tttagtcttc tgcttgagga actgactgtg  
900  
aagcgacgcc cagtgaaaaa catgatcttg cagcagctct ggtggcagct gtccttgagg  
960  
aacctttggt gtgtggtggg aagctatcag aacaagaaat gtaggcattt cccgtttttt  
1020  
ttgggggggg ggtggggggg cagggctctg ccctcttgaa aggcatttac ttgtttaaca  
1080  
cttgtccagc tacagtgggg tacagtagct ggctattcac aggcattcac atagcccact  
1140  
agtctcatat tattttcctt ttgagaaatt ggaaactctt tctgttgcta ttatattaat  
1200  
aaagtgtgtg tttattttct ggtaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa  
1260  
aaaaaa  
1266



<210> 3276  
 <211> 110  
 <212> PRT  
 <213> Homo sapiens

<400> 3276  
 Met Ala Lys His His Pro Asp Leu Ile Phe Cys Arg Lys Gln Ala Gly  
           1                  5                  10                  15  
 Val Ala Ile Gly Arg Leu Cys Glu Lys Cys Asp Gly Lys Cys Val Ile  
                   20                  25                  30  
 Cys Asp Ser Tyr Val Arg Pro Cys Thr Leu Val Arg Ile Cys Asp Glu  
                   35                  40                  45  
 Cys Asn Tyr Gly Ser Tyr Gln Gly Arg Cys Val Ile Cys Gly Gly Pro  
           50                  55                  60  
 Gly Val Ser Asp Ala Tyr Tyr Cys Lys Glu Cys Thr Ile Gln Glu Lys  
           65                  70                  75                  80  
 Asp Arg Asp Gly Cys Pro Lys Ile Val Asn Leu Gly Ser Ser Lys Thr  
                   85                  90                  95  
 Asp Leu Phe Tyr Glu Arg Lys Lys Tyr Gly Phe Lys Lys Arg  
           100                  105                  110

<210> 3277  
 <211> 1435  
 <212> DNA  
 <213> Homo sapiens

<400> 3277  
 ncctccgtct ccgagaacaa caacaacagc aacaagaaaa caacaataaa aaaaataagg  
 60  
 ctgcgtggga ggcagaaaga gctaattgcg ccacgcttgt ccctcggcca ccgtcccacc  
 120  
 cagacttccg tctccttaaa atgttcatgc gtaagtgcgt ggcagaagcg gctcaagcgc  
 180  
 actcgtgcgt cattgctgtc agggccgagg gagcggtgca aggccgccgc gtgacgtcag  
 240  
 gacgccgcgg tcaggacgtc gaagccaaag aagaccagag ccagccgggt ggcacagcgg  
 300  
 tgcgtggcc gtgttgctga tcgcctgggt ggttggtggc gtgtccctgc agcgaaggat  
 360  
 cctggttggc agtgaaaaag cagtctggct cccgaggtcc accccttata cccaaggtc  
 420  
 cagatggcgg ccaacgtggg tgatcaacgt agcacagatt ggtcttctca gtacagcatg  
 480  
 gtggctgggg caggccgaga gaatggcatg gagacgccga tgcacgagaa cccggagtgg  
 540  
 gagaaggccc gtcaggccct ggccagcatc agcaagtcag gagctgccgg cggctctgcc  
 600  
 aagtccagca gcaatgggccc tgtggccagt gcaagtacgt gtcccaggca gaagcctcag  
 660  
 ctttgcagca gcagcagtac taccagtggg accagcagta caactatgcc taccctaca  
 720  
 gctactacta tcccatgagc atgtaccaga gctatggctc cccttcccag tatgggatgg  
 780

ccggctccta tggctagcca caccacagca gccatccgca ccccaacacc aagggactct  
 840  
 gaaccagccc ccagtccccg gcatggatga gagcatgtcc taccaggctc cccctcagca  
 900  
 gctgccgtcg gctcagcccc ctcagccctc aaatccccca catggggctc acacgctgaa  
 960  
 cagtggccct cagcctggga cagctccagc cacacagcan ncagccaggc ggggcccggc  
 1020  
 acgggcccagg cctatggggc acacacctac accgaacctg ccaagcccaa gaagggccaa  
 1080  
 cagctgtgga accgcatgaa acccgccctt gggactggag gttcaagtcc aacatccaga  
 1140  
 agcgaccctt tgctgttacc acccagagct ttggctccaa cgcagagggc cagcacagt  
 1200  
 gttttggccc ccagcccaac cctgagaaag ttcagaacca cagcgggtcc tctgcccggg  
 1260  
 ggaacctgtc tgggaagccc gatgactggc cccaggacat gaaagagtat gtggagcgct  
 1320  
 gcttcaccgc ctgtgagtcg gaggaggaca aggaccgcac ggaaaagctg ctcaaggagg  
 1380  
 tgctgcaggc gcggctgcag gacggctcgg cctataccat tgactggagc cggga  
 1435

&lt;210&gt; 3278

&lt;211&gt; 104

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3278

Met	Ala	Ala	Asn	Val	Gly	Asp	Gln	Arg	Ser	Thr	Asp	Trp	Ser	Ser	Gln
1				5				10					15		
Tyr	Ser	Met	Val	Ala	Gly	Ala	Gly	Arg	Glu	Asn	Gly	Met	Glu	Thr	Pro
			20					25					30		
Met	His	Glu	Asn	Pro	Glu	Trp	Glu	Lys	Ala	Arg	Gln	Ala	Leu	Ala	Ser
			35				40					45			
Ile	Ser	Lys	Ser	Gly	Ala	Ala	Gly	Gly	Ser	Ala	Lys	Ser	Ser	Ser	Asn
	50				55						60				
Gly	Pro	Val	Ala	Ser	Ala	Ser	Thr	Cys	Pro	Arg	Gln	Lys	Pro	Gln	Leu
65				70				75						80	
Cys	Ser	Ser	Ser	Ser	Thr	Thr	Ser	Gly	Thr	Ser	Ser	Thr	Thr	Met	Pro
				85				90						95	
Thr	Pro	Thr	Ala	Thr	Thr	Ile	Pro								
				100											

&lt;210&gt; 3279

&lt;211&gt; 1130

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3279

nngcgcgcc accgcgcgc atccatgttc gacaccacac ccactctgg ccggagcacg  
 60  
 ccaagcagct ccccatcgct ccggaaacgg ctgcagctcc tgccccaag ccggcccca  
 120

cctgagccag aaccaggcac catggtggag aagggatcag atagctcctc agagaagggg  
 180  
 ggggtgcctg ggacccccag caccagagc ctaggcagcc ggaacttcac ccgcaacagc  
 240  
 aagaagatgc agagctggta cagtatgctg agccccactt ataagcagcg taatgaggac  
 300  
 ttccggaac tggtcagcaa actccccgaa gcagaacgcc tcattgtgga ttactcctgc  
 360  
 gccctgcagc gtgagatcct gctccagggc cgcctctacc tctctgagaa ctggatctgc  
 420  
 ttctacagca acatcttccg ctgggagacc acgatctcca tccagctgaa ggaagtgaca  
 480  
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 540  
 agcgagaagc atttcttcac ttcttttggg gcccgtagacc gctgcttctc cctcatcttc  
 600  
 cgcctctggc agaatgcact gcttgaaaag acgctgagtc cccgcgagct ctggcacctg  
 660  
 gtgcatcagt gctacggctc agagctgggc ctcaccagtg aggatgagga ctatgtctcc  
 720  
 cccttgagc tgaacggtct ggggaccccc aaggaagtgg gagatgtgat cgccctgagc  
 780  
 gacatcacct cctcgggggc agctgaccgc agccaggagc caagcccagt gggttcgcgc  
 840  
 cgtggccatg tcacgcccac cctttccgga gccagcagcg acgcagacca tggggcagag  
 900  
 gaggacaagg aggagcaggt agacagccag ccagacgcct cctccagcca gacagtgacc  
 960  
 ccggtggctg aacccccgag cacagagccc acccagcctg acgggcccac caccctgggc  
 1020  
 cccttgatc tgctgcccag tgaggagcta ttgacagaca caagtaactc ctcttcaccc  
 1080  
 actggggagg aagcggactt ggctgccctg cttcccagacc tctccggccg  
 1130

&lt;210&gt; 3280

&lt;211&gt; 376

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3280

Xaa	Arg	Ala	His	Arg	Ala	Ala	Ser	Met	Phe	Asp	Thr	Thr	Pro	His	Ser
1			5						10					15	
Gly	Arg	Ser	Thr	Pro	Ser	Ser	Ser	Pro	Ser	Leu	Arg	Lys	Arg	Leu	Gln
			20					25					30		
Leu	Leu	Pro	Pro	Ser	Arg	Pro	Pro	Pro	Glu	Pro	Glu	Pro	Gly	Thr	Met
			35				40				45				
Val	Glu	Lys	Gly	Ser	Asp	Ser	Ser	Ser	Glu	Lys	Gly	Gly	Val	Pro	Gly
	50					55					60				
Thr	Pro	Ser	Thr	Gln	Ser	Leu	Gly	Ser	Arg	Asn	Phe	Ile	Arg	Asn	Ser
65				70					75					80	
Lys	Lys	Met	Gln	Ser	Trp	Tyr	Ser	Met	Leu	Ser	Pro	Thr	Tyr	Lys	Gln
			85					90					95		
Arg	Asn	Glu	Asp	Phe	Arg	Lys	Leu	Phe	Ser	Lys	Leu	Pro	Glu	Ala	Glu

```

      100      105      110
Arg Leu Ile Val Asp Tyr Ser Cys Ala Leu Gln Arg Glu Ile Leu Leu
      115      120      125
Gln Gly Arg Leu Tyr Leu Ser Glu Asn Trp Ile Cys Phe Tyr Ser Asn
      130      135      140
Ile Phe Arg Trp Glu Thr Thr Ile Ser Ile Gln Leu Lys Glu Val Thr
      145      150      155      160
Cys Leu Lys Lys Glu Lys Thr Ala Lys Leu Ile Pro Asn Ala Ile Gln
      165      170      175
Ile Cys Thr Glu Ser Glu Lys His Phe Phe Thr Ser Phe Gly Ala Arg
      180      185      190
Asp Arg Cys Phe Leu Leu Ile Phe Arg Leu Trp Gln Asn Ala Leu Leu
      195      200      205
Glu Lys Thr Leu Ser Pro Arg Glu Leu Trp His Leu Val His Gln Cys
      210      215      220
Tyr Gly Ser Glu Leu Gly Leu Thr Ser Glu Asp Glu Asp Tyr Val Ser
      225      230      235      240
Pro Leu Gln Leu Asn Gly Leu Gly Thr Pro Lys Glu Val Gly Asp Val
      245      250      255
Ile Ala Leu Ser Asp Ile Thr Ser Ser Gly Ala Ala Asp Arg Ser Gln
      260      265      270
Glu Pro Ser Pro Val Gly Ser Arg Arg Gly His Val Thr Pro Asn Leu
      275      280      285
Ser Arg Ala Ser Ser Asp Ala Asp His Gly Ala Glu Glu Asp Lys Glu
      290      295      300
Glu Gln Val Asp Ser Gln Pro Asp Ala Ser Ser Ser Gln Thr Val Thr
      305      310      315      320
Pro Val Ala Glu Pro Pro Ser Thr Glu Pro Thr Gln Pro Asp Gly Pro
      325      330      335
Thr Thr Leu Gly Pro Leu Asp Leu Leu Pro Ser Glu Glu Leu Leu Thr
      340      345      350
Asp Thr Ser Asn Ser Ser Ser Ser Thr Gly Glu Glu Ala Asp Leu Ala
      355      360      365
Ala Leu Leu Pro Asp Leu Ser Gly
      370      375

```

&lt;210&gt; 3281

&lt;211&gt; 842

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3281

```

gaattctgcc ttgccgtgtg cctcattggc caaaggaaag caacagagtc tgcagccagg
60
gcaggacccg caggaggggc ctggaccccg ggggctcctg gcagcgctgt gcctttctga
120
ggcaaggagg tagagccagc ggctgaggac ctgtcagggc cagtcccagc tctgcagctt
180
gctgtgtgac ctggcacaca tcctetccct gcctccctca gtctcttccc ctgcaagacg
240
gggtcctgac acggatctca tgggattgct ctgaggccca ggagtcacca ggctcaacca
300
ctggttcaca aagtgtgttg tttccaggaa gaacagatgg gggcgctga gggcaaaggg
360

```

cctgagtgtg ggtcgaggat atgccggctg ctcgctcagg ggctggggtt tcattcttgtg  
 420  
 tgtcttgaca ggggtgtgaca cttggcacca cactgttccc tgcccttca tggatgtggc  
 480  
 ccacatgatg ttcctttcct cttgcaaaag aagttgctgg aaggccact gtccagcagc  
 540  
 ccccaggttg cctggggccac ggtgcctttg tgggcccagc tacaaggagg acttgcaggc  
 600  
 tcgtgtctgg gacagatact ggcgccaggg ccaagtgaag cccgggattg gtgggcatct  
 660  
 ctactgtgtc cctgagagag ggtggagggt gctgacaggc cttggcgctt tcattctgtca  
 720  
 actccagagg ccttctgtgt tgcagcaggg aggtcaaggc cagggcgctt gaccccgcc  
 780  
 gctcctccac actgagcctc ctgcacgtgc tcacaggtag agaagcggcg ggtcaatctg  
 840  
 tc  
 842

&lt;210&gt; 3282

&lt;211&gt; 146

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3282

Met	Pro	Thr	Asn	Pro	Gly	Leu	His	Leu	Ala	Leu	Ala	Pro	Val	Ser	Val
1				5					10					15	
Pro	Asp	Thr	Ser	Leu	Gln	Val	Leu	Leu	Val	Ala	Gly	Pro	Thr	Lys	Ala
	20							25					30		
Pro	Trp	Pro	Arg	Gln	Pro	Gly	Gly	Cys	Trp	Thr	Val	Gly	Leu	Pro	Ala
	35					40					45				
Thr	Ser	Phe	Ala	Arg	Gly	Lys	Glu	His	His	Val	Gly	His	Ile	His	Glu
	50				55					60					
Gly	Thr	Gly	Asn	Ser	Val	Val	Pro	Ser	Val	Thr	Pro	Cys	Gln	Asp	Thr
65			70						75					80	
Gln	Asp	Glu	Asn	Pro	Ala	Pro	Glu	Arg	Ala	Ala	Gly	Ile	Ser	Ser	Thr
			85					90					95		
His	Thr	Gln	Ala	Leu	Cys	Pro	Gln	Ala	Pro	Pro	Ser	Val	Leu	Pro	Gly
			100					105					110		
Asn	Asn	Thr	Leu	Cys	Glu	Pro	Val	Val	Glu	Pro	Gly	Thr	Ala	Trp	Ala
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Ser	Glu	Gln	Ser	His	Glu	Ile	Arg	Val	Arg	Thr	Pro	Ser	Cys	Arg	Gly
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Arg	Asp														
145															

&lt;210&gt; 3283

&lt;211&gt; 3268

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3283

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<210> 3284  
 <211> 1012  
 <212> PRT  
 <213> Homo sapiens

<400> 3284

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          20           25           30
Ala Phe Thr Arg Xaa His Val Cys Ala Glu Asn Leu Pro Pro Val Leu
          35           40           45
Met Glu His Lys Ala Thr Thr Ile Gln Lys His Val Arg Gly Trp Met
          50           55           60
Ala Arg Arg His Phe Gln Arg Leu Arg Asp Ala Ala Ile Val Ile Gln
          65           70           75           80
Cys Ala Phe Arg Met Leu Lys Ala Arg Arg Glu Leu Lys Ala Leu Arg
          85           90           95
Ile Glu Ala Arg Ser Ala Glu His Leu Lys Arg Leu Asn Val Gly Met
          100          105          110
Glu Asn Lys Val Val Gln Leu Gln Arg Lys Ile Asp Glu Gln Asn Lys
          115          120          125
Glu Phe Lys Thr Leu Ser Glu Gln Leu Ser Val Thr Thr Ser Thr Tyr
          130          135          140
Thr Met Glu Val Glu Arg Leu Lys Lys Glu Leu Val His Tyr Gln Gln
          145          150          155          160
Ser Pro Gly Glu Asp Thr Ser Leu Arg Leu Gln Glu Glu Val Glu Ser
          165          170          175
Leu Arg Thr Glu Leu Gln Arg Ala His Ser Glu Arg Lys Ile Leu Glu
          180          185          190
Asp Ala His Ser Arg Glu Lys Asp Glu Leu Arg Lys Arg Val Ala Asp
          195          200          205
Leu Glu Gln Glu Asn Ala Leu Leu Lys Asp Glu Lys Glu Gln Leu Asn
          210          215          220
Asn Gln Ile Leu Cys Gln Ser Lys Asp Glu Phe Ala Gln Asn Ser Val
          225          230          235          240
Lys Glu Asn Leu Leu Met Lys Lys Glu Leu Glu Glu Glu Arg Ser Arg
          245          250          255
Tyr Gln Asn Leu Val Lys Glu Tyr Ser Gln Leu Glu Gln Arg Tyr Asp
          260          265          270
Asn Leu Arg Asp Glu Met Thr Ile Ile Lys Gln Thr Pro Gly His Arg
          275          280          285
Arg Asn Pro Ser Asn Gln Ser Ser Leu Glu Ser Asp Ser Asn Tyr Pro
          290          295          300
Ser Ile Ser Thr Ser Glu Ile Gly Asp Thr Glu Asp Ala Leu Gln Gln
          305          310          315          320
Val Glu Glu Ile Gly Leu Glu Lys Ala Ala Met Asp Met Thr Val Phe
          325          330          335
Leu Lys Leu Gln Lys Arg Val Arg Glu Leu Glu Gln Glu Arg Lys Lys
          340          345          350
Leu Gln Val Gln Leu Glu Lys Arg Glu Gln Gln Asp Ser Lys Lys Val
          355          360          365
Gln Ala Glu Pro Pro Gln Thr Asp Ile Asp Leu Asp Pro Asn Ala Asp

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370 375 380  
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 385 390 395 400  
 Lys Leu Lys Asn Asp Leu Asn Glu Leu Arg Lys Ala Val Ala Asp Gln  
 405 410 415  
 Ala Thr Gln Asn Asn Ser Ser His Gly Ser Pro Asp Ser Tyr Ser Leu  
 420 425 430  
 Leu Leu Asn Gln Leu Lys Leu Ala His Glu Glu Leu Glu Val Arg Lys  
 435 440 445  
 Glu Glu Val Leu Ile Leu Arg Thr Gln Ile Val Ser Ala Asp Gln Arg  
 450 455 460  
 Arg Leu Ala Gly Arg Asn Ala Glu Pro Asn Ile Asn Ala Arg Ser Ser  
 465 470 475 480  
 Trp Pro Asn Ser Glu Arg His Val Asp Gln Glu Asp Ala Ile Glu Ala  
 485 490 495  
 Tyr His Gly Val Cys Gln Thr Asn Arg Leu Leu Glu Ala Gln Leu Gln  
 500 505 510  
 Ala Gln Ser Leu Glu His Glu Glu Glu Val Glu His Leu Lys Ala Gln  
 515 520 525  
 Leu Glu Ala Leu Lys Glu Glu Met Asp Lys Gln Gln Gln Thr Phe Cys  
 530 535 540  
 Gln Thr Leu Leu Leu Ser Pro Glu Ala Gln Val Glu Phe Gly Val Gln  
 545 550 555 560  
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 Val Glu Lys Leu Glu Lys Asn Glu Arg Lys Leu Lys Lys Gln Leu Lys  
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 Ile Tyr Met Lys Lys Ala Gln Asp Leu Glu Ala Ala Gln Ala Leu Ala  
 595 600 605  
 Gln Ser Glu Arg Lys Arg His Glu Leu Asn Arg Gln Val Thr Val Gln  
 610 615 620  
 Arg Lys Glu Lys Asp Phe Gln Gly Met Leu Glu Tyr His Lys Glu Asp  
 625 630 635 640  
 Glu Ala Leu Leu Ile Arg Asn Leu Val Thr Asp Leu Lys Pro Gln Met  
 645 650 655  
 Leu Ser Gly Thr Val Pro Cys Leu Pro Ala Tyr Ile Leu Tyr Met Cys  
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 Ile Arg His Ala Asp Tyr Thr Asn Asp Asp Leu Lys Val His Ser Leu  
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 Asp Asp Phe Glu Met Thr Ser Phe Trp Leu Ser Asn Thr Cys Arg Leu  
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 Glu Tyr Arg Gln Val Leu Ser Asp Leu Ser Ile Gln Ile Tyr Gln Gln  
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 Met Leu Glu Asn Glu Ser Ile Gln Gly Leu Ser Gly Val Lys Pro Thr  
 785 790 795 800  
 Gly Tyr Arg Lys Arg Ser Ser Ser Met Ala Asp Gly Asp Asn Ser Tyr

805 810 815  
 Cys Leu Glu Ala Ile Ile Arg Gln Met Asn Ala Phe His Thr Val Met  
 820 825 830  
 Cys Asp Gln Gly Leu Asp Pro Glu Ile Ile Leu Gln Val Phe Lys Gln  
 835 840 845  
 Leu Phe Tyr Met Ile Asn Ala Val Thr Leu Asn Asn Leu Leu Leu Arg  
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 Lys Asp Val Cys Ser Trp Ser Thr Gly Met Gln Leu Arg Tyr Asn Ile  
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 Ser Gln Leu Glu Glu Trp Leu Arg Gly Arg Asn Leu His Gln Ser Gly  
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 900 905 910  
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 Thr Ser Leu Ser Thr Gln Gln Ile Val Lys Ile Leu Asn Leu Tyr Thr  
 930 935 940  
 Pro Leu Asn Glu Phe Glu Glu Arg Val Thr Val Ala Phe Ile Arg Thr  
 945 950 955 960  
 Ile Gln Ala Gln Leu Gln Glu Arg Asn Asp Pro Gln Gln Leu Leu Leu  
 965 970 975  
 Asp Ala Lys His Met Phe Pro Val Leu Phe Pro Phe Asn Pro Ser Ser  
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 1010

&lt;210&gt; 3285

&lt;211&gt; 1518

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3285

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 ggttttacca ctgcctcctt tggcaacttg agtggtggtg ttcccacga gtttatggct  
 180  
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 300  
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 360  
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 420  
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 480  
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 660  
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 720  
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&lt;210&gt; 3286

&lt;211&gt; 142

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3286

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			20					25					30		
Lys	Asn	Asn	Asp	Asn	Thr	Arg	Pro	Ala	Pro	Pro	Pro	Lys	Ser	Cys	Cys
		35					40					45			
Cys	Glu	Leu	Arg	Leu	Gln	Lys	Arg	Thr	His	Thr	Val	Ala	Asp	Lys	Thr
	50					55					60				
Gln	Ala	Arg	Arg	Met	Phe	Glu	Ser	Gln	Ser	Ala	Leu	Ser	Leu	Val	Pro
65					70					75				80	
Val	Thr	Ser	Tyr	Val	Gln	Leu	Pro	Gly	Pro	Ile	Pro	Tyr	Ser	Asp	Cys
				85				90						95	
Arg	Leu	Arg	Thr	Glu	Asp	Ala	Pro	Leu	Leu	Ser	Leu	His	Phe	Asp	Leu
			100				105						110		
Leu	Phe	Pro	Leu	Lys	Thr	Arg	Arg	Pro	Ala	Phe	Pro	Lys	Thr	Ala	Trp

115	120	125
Pro Trp Leu Cys Thr Leu Phe Thr Thr Asp Gln Asn Ser Ile		
130	135	140

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 <212> DNA  
 <213> Homo sapiens

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 921

<210> 3288  
 <211> 148  
 <212> PRT  
 <213> Homo sapiens

<400> 3288  
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 20 25 30  
 Ser Cys Ser Phe Ser Phe Gly Leu Ser Lys Tyr Pro Gly Pro Pro Cys

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Ile Pro Leu Pro Phe Ser Cys Gly Cys Gly Ala Ser Leu Asn Arg Ser
      50              55              60
Thr Phe Leu Phe Pro Ser Thr Arg Asp Arg Glu Ser Leu Lys Gly Ser
65              70              75              80
Gly Ala Pro Ser Ala His Leu Asp Gly Ala Gly Asp Ala Gln Arg Arg
      85              90              95
Phe Arg Ala Leu Tyr Phe Gln Leu Gln His Ser Gln Val Phe Thr Ala
      100             105             110
Gln Gly Asp Gly Ala Arg Val Thr Arg Asn Pro Gly Glu Gly Arg Ser
      115             120             125
Phe Pro Arg Arg Gly Ala Thr Ser Phe Pro Asp Trp Ala Tyr Ala Gly
      130             135             140
Gly Arg Gln Leu
145

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&lt;210&gt; 3289

&lt;211&gt; 554

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3289

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420
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540
ataagctgca attg
554

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&lt;210&gt; 3290

&lt;211&gt; 129

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3290

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      20              25              30
Gly Ser Leu Thr Gln Cys Arg Arg Ala Trp Val Pro Pro Trp Thr Gln

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      35              40              45
Ser Leu Pro Leu Gly Ala Ser Val Ser Ser Ser Val Asp Trp Val Ala
  50              55              60
Cys Ala Ala Arg Arg Gly Cys Leu Val Ser Gly Arg Trp Ser Thr His
  65              70              75              80
His Arg Val Glu Ser Lys Ala Ser Pro Leu Ser Pro Ser Leu Pro Trp
      85              90              95
Thr Ser Pro Leu Pro Ala Thr Leu Ala Gly Leu Cys Glu Trp Glu Gly
      100              105              110
Arg Pro Ala Leu Ala Gly Ser Ser Pro Val Pro Pro Ala Leu Ile Leu
      115              120              125
Gly

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&lt;210&gt; 3291

&lt;211&gt; 1075

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3291

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  120
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  180
gcctctgtcc ctccgcactg gctgttcacc tggttagctg tgtccgtttc tcaaccggga
  240
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  300
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<211> 102

<212> PRT

<213> Homo sapiens

<400> 3292

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Ser	Glu	Ser	Xaa	Arg	Arg	Pro	Leu	Pro	Pro	Pro	Gln	Leu	Pro	Pro	Pro
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<212> DNA

<213> Homo sapiens

<400> 3293

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<212> PRT  
<213> Homo sapiens

<400> 3294

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Thr	Ser	Leu	Pro	Pro	Gly	Pro	Pro	Ala	Gly	Arg	Arg	His	Leu	Pro	Leu
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Ser	Arg	Arg	Arg	Arg	Glu	Met	Ser	Ser	Asn	Lys	Glu	Gln	Arg	Ser	Ala
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Val	Phe	Val	Ile	Leu	Phe	Ala	Leu	Ile	Thr	Ile	Leu	Ile	Leu	Tyr	Ser
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 <211> 690  
 <212> DNA  
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 Pro Thr Trp Lys Glu Cys Pro Ile Cys Lys Glu Arg Phe Pro Ala Glu  
 85 90 95  
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115

120

&lt;210&gt; 3297

&lt;211&gt; 3176

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3297

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<400> 3298  
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&lt;210&gt; 3300

&lt;211&gt; 219

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3300

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Leu Glu Asp Val Ala Arg Thr Ala Asp His Ile Ser Arg Asp Ala Phe			
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Leu Lys Arg Pro Ile Ser Asn Lys Tyr Met Tyr Phe Met Lys Asn Arg			
85	90	95	
Ala Arg Ser Lys Gly Ile Asn Leu Lys Leu Leu Pro Asn Gly Phe Thr			
100	105	110	
Lys Arg Lys Glu Asn Ser Thr Phe Phe Asp Lys Lys Lys Gln Gln Phe			
115	120	125	
Cys Trp His Val Lys Leu Gln Phe Pro Gln Ser Gln Ala Glu Tyr Ile			
130	135	140	
Glu Lys Arg Val Pro Asp Lys Thr Ile Asn Glu Ile Leu Lys Pro			
145	150	155	160
Tyr Ile Asp Pro Glu Lys Ser Asp Pro Val Ile Arg Gln Arg Leu Lys			
165	170	175	
Ala Tyr Ile Arg Ser Gln Thr Gly Val Gln Ile Leu Met Lys Ile Glu			
180	185	190	
Tyr Met Gln Gln Asn Leu Val Arg Tyr Tyr Glu Leu Asp Pro Tyr Lys			
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Ser Leu Leu Asp Asn Leu Arg Asn Lys Val Ile			
210	215		

&lt;210&gt; 3301

&lt;211&gt; 2109

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3301

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2109

&lt;210&gt; 3302



&lt;211&gt; 323

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3302

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 1           5           10           15
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          20           25           30
Gln Leu Gln Gly Gly Arg Phe Leu Met Gly Thr Asn Ser Pro Asp Ser
          35           40           45
Arg Asp Gly Glu Gly Pro Val Arg Glu Ala Thr Val Lys Pro Phe Ala
          50           55           60
Ile Asp Ile Phe Pro Val Thr Asn Lys Asp Phe Arg Asp Phe Val Arg
65          70          75          80
Glu Lys Lys Tyr Arg Thr Glu Ala Glu Met Phe Gly Trp Ser Phe Val
          85          90          95
Phe Glu Asp Phe Val Ser Asp Glu Leu Arg Asn Lys Ala Thr Gln Pro
          100         105         110
Met Lys Val Lys Phe Thr His Gly Gly Thr Gly Ser Ser Gln Thr Ala
          115         120         125
Pro Thr Cys Gly Arg Glu Ser Ser Pro Arg Glu Thr Lys Leu Arg Met
          130         135         140
Ala Ser Met Glu Ser Pro Xaa Val Asn Ala Phe Pro Ala Gln Asn Asn
145         150         155         160
Tyr Gly Leu Tyr Asp Leu Leu Gly Asn Val Trp Glu Trp Thr Ala Ser
          165         170         175
Pro Tyr Gln Ala Ala Glu Gln Asp Met Arg Val Leu Arg Gly His Pro
          180         185         190
Gly Ser Thr Gln Leu Met Ala Leu Pro Ile Thr Gly Pro Gly Ser Pro
          195         200         205
Pro Gly Trp Ala Thr Leu Gln Ile Gln Pro Gln Thr Thr Ser Val Ser
          210         215         220
Ala Val Leu Gln Thr Gln Ala Gly Arg Gln Gly Ser Cys Lys Gln Pro
225         230         235         240
Gly Gly Asp Lys Glu Lys Ser Leu Leu Gly Ser Leu Ser Phe Pro Gly
          245         250         255
His Val Ala Asn Ser Ala Ile Pro Ser Ser Arg Ala Ser Ala Ser Gly
          260         265         270
Lys Asn Phe Pro Phe Pro Val Ser His Pro Ser Val Ala Gly Ala Ser
          275         280         285
His Gln Gly Arg Arg Gly Leu Ser Leu Leu Cys Phe Gly Glu Gly Ala
          290         295         300
Gln Cys Val Leu Thr Met Ala Gly Gly Gln Val Phe Leu Leu Glu Ala
305         310         315         320
Lys Tyr Tyr

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&lt;210&gt; 3303

&lt;211&gt; 699

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3303

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 300  
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<210> 3304

<211> 233

<212> PRT

<213> Homo sapiens

<400> 3304

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Asp	Ala	Ser	Ala	Ser	Pro	Leu	Ser	Pro	His	Arg	Arg	Ala	Lys	Ser	Leu
			20					25					30		
Asp	Arg	Arg	Ser	Thr	Glu	Pro	Ser	Val	Thr	Pro	Asp	Leu	Leu	Asn	Phe
			35				40					45			
Lys	Lys	Gly	Trp	Leu	Thr	Lys	Gln	Tyr	Glu	Asp	Gly	Gln	Trp	Lys	Lys
			50			55					60				
His	Trp	Phe	Val	Leu	Ala	Asp	Gln	Ser	Leu	Arg	Tyr	Tyr	Arg	Asp	Ser
65					70					75				80	
Val	Ala	Glu	Glu	Ala	Ala	Asp	Leu	Asp	Gly	Glu	Ile	Asp	Leu	Ser	Ala
				85					90					95	
Cys	Tyr	Asp	Val	Thr	Glu	Tyr	Pro	Val	Gln	Arg	Asn	Tyr	Gly	Phe	Gln
			100					105					110		
Ile	His	Thr	Lys	Glu	Gly	Glu	Phe	Thr	Leu	Ser	Ala	Met	Thr	Ser	Gly
			115				120					125			
Ile	Arg	Arg	Asn	Trp	Ile	Gln	Thr	Ile	Met	Lys	His	Val	His	Pro	Thr
			130			135					140				
Thr	Ala	Pro	Asp	Val	Thr	Ser	Ser	Leu	Pro	Glu	Glu	Lys	Asn	Lys	Ser
145					150					155				160	
Ser	Cys	Ser	Phe	Glu	Thr	Cys	Pro	Arg	Ser	Thr	Glu	Lys	Gln	Glu	Ala
				165				170						175	
Glu	Leu	Gly	Glu	Pro	Asp	Pro	Glu	Gln	Lys	Arg	Ser	Arg	Ala	Arg	Glu

	180		185		190
Arg	Arg	Arg	Glu	Gly	Arg
	195		200		205
Pro	Ile	Gln	Gln	Ala	Leu
	210		215		220
Ala	Asp	Thr	His	Glu	Pro
225			230		

&lt;210&gt; 3305

&lt;211&gt; 2717

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3305

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360
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420
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1200

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2160  
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&lt;210&gt; 3306

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 <212> PRT  
 <213> Homo sapiens

<400> 3306  
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 Ile Ser Leu Val Met Lys Thr Pro Arg Val Ala Lys Asn Glu Ala Leu  
 35 40 45  
 Trp His Pro Thr Leu Asn Leu Pro Leu Ser Pro Gln Gly Thr Val Arg  
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 Thr Ala Val Glu Phe Gln Val Met Thr Gln Thr Gln Ser Leu Ser Phe  
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 Leu Leu Gly Ser Ser Ala Ser Leu Asp Cys Gly Phe Ser Met Ala Pro  
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 Gly Leu Asp Leu Ile Ser Val Glu Trp Arg Leu Gln His Lys Gly Arg  
 100 105 110  
 Gly Gln Leu Val Tyr Ser Trp Thr Ala Gly Gln Gly Gln Ala Val Arg  
 115 120 125  
 Lys Gly Ala Thr Leu Xaa Ala Cys Thr Thr Gly His Gly Xaa Arg Asp  
 130 135 140  
 Ala Ser Leu Thr Leu Pro Gly Leu Thr Ile Gln Asp Glu Gly Thr Tyr  
 145 150 155 160  
 Ile Cys Gln Ile Thr Thr Ser Leu Tyr Arg Ala Gln Gln Ile Ile Gln  
 165 170 175  
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 180 185 190  
 Ala Leu Leu Pro Thr Leu Ile Cys Asp Ile Ala Gly Tyr Tyr Pro Leu  
 195 200 205  
 Asp Val Val Val Thr Trp Thr Arg Glu Glu Leu Gly Gly Ser Pro Ala  
 210 215 220  
 Gln Val Ser Gly Ala Ser Phe Ser Ser Leu Arg Gln Ser Val Ala Gly  
 225 230 235 240  
 Thr Tyr Ser Ile Ser Ser Ser Leu Thr Ala Glu Pro Gly Leu Cys Arg  
 245 250 255  
 Cys His Leu His Leu Pro Gly His Thr His Leu Ser Gly Gly Ala Pro  
 260 265 270  
 Trp Gly Gln His Pro Gly Cys Pro Thr Arg Ala Glu Asn Ser Leu Gly  
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 <212> DNA  
 <213> Homo sapiens

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<210> 3308

<211> 110

<212> PRT

<213> Homo sapiens

<400> 3308

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Ser	Leu	His	Pro	Asp	Pro	Gly	Ala	Ser	Leu	Pro	Cys	Pro	Val	Leu	Ile
			20					25					30		
Pro	Arg	Trp	Glu	Pro	Cys	Leu	Gly	Gln	Gly	Gly	Arg	Val	Asp	Gly	Ser
			35				40					45			
Trp	Asp	Cys	Asp	Ile	Gly	Arg	Arg	Gly	Arg	Ser	Pro	Ala	Leu	Ser	Ser
	50				55					60					
Ala	Gly	Trp	Ala	Gly	Ile	His	Leu	Ala	Ala	Ser	Gln	Gly	Leu	Cys	Pro
65					70					75				80	
Ala	Gly	Trp	Ser	Leu	Cys	Cys	Pro	Asn	Gln	Val	Ser	Thr	Phe	Pro	Ala
				85				90						95	
Pro	Met	Arg	Arg	Glu	Gly	Gly	Arg	Trp	Trp	Leu	Gly	Trp	Arg		
			100				105						110		

<210> 3309

<211> 737

<212> DNA

<213> Homo sapiens

<400> 3309

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<210> 3310

<211> 210

<212> PRT

<213> Homo sapiens

<400> 3310

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Ala	Gln	Leu	Glu	Glu	Gln	Phe	Tyr	Leu	Gln	Ala	Leu	Lys	Leu	Pro	Asn	35	40	45	
Gln	Thr	His	Pro	Asp	Val	Pro	Val	Gly	Asp	Glu	Ser	Gln	Ala	Arg	Val	50	55	60	
Leu	His	Met	Val	Gly	Asp	Lys	Pro	Val	Phe	Ser	Phe	Gln	Pro	Arg	Gly	65	70	75	80
His	Leu	Glu	Ile	Gly	Glu	Lys	Leu	Asp	Ile	Arg	Gln	Lys	Arg	Leu		85	90	95	
Ser	His	Val	Ser	Gly	His	Arg	Ser	Tyr	Tyr	Leu	Arg	Gly	Ala	Gly	Ala	100	105	110	
Leu	Leu	Gln	His	Gly	Leu	Val	Asn	Phe	Thr	Phe	Asn	Lys	Leu	Leu	Arg	115	120	125	
Arg	Gly	Phe	Thr	Pro	Met	Thr	Val	Pro	Asp	Leu	Leu	Arg	Gly	Ala	Val	130	135	140	
Phe	Glu	Gly	Cys	Gly	Met	Thr	Pro	Asn	Ala	Asn	Pro	Ser	Gln	Ile	Tyr	145	150	155	160
Asn	Ile	Asp	Pro	Ala	Arg	Phe	Lys	Asp	Leu	Asn	Leu	Ala	Gly	Thr	Ala	165	170	175	
Glu	Val	Gly	Leu	Ala	Gly	Tyr	Phe	Met	Asp	His	Thr	Val	Ala	Phe	Arg	180	185	190	
Asp	Leu	Pro	Val	Arg	Met	Val	Cys	Ser	Ser	Thr	Cys	Tyr	Arg	Ala	Glu	195	200	205	
Thr	Asn															210			

<210> 3311

<211> 486

<212> DNA

<213> Homo sapiens

<400> 3311

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<210> 3312
<211> 102
<212> PRT
<213> Homo sapiens
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<210> 3313
<211> 1791
<212> DNA
<213> Homo sapiens
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2500